PALAU DEVELOPMENT PLAN, 2023 - 2026

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EXECUTIVE SUMMARY

The long-term **vision** of the Palau Development Plan, 2023 to 2026 is to substantially enhance the quality of life of current and future generations of Palauans. The medium-term **outcome** in support of that vision is that well-established processes and programs will have been put in place by 2026 to (i) progress the quality of social support, (ii) nourish Palauan culture and identity, (iii) maintain the environment and counter climate change, (iv) restore economic growth, and (v) strengthen governance in support of growth. These are the country's five development **pillars**: social, cultural, environmental, economic, and governance.

An assessment of the status and progress of the five pillars, that is, the country context leads to an identification of country-level development priorities. These priorities are combined with development priorities expressed by the country's communities to produce plan directions to be taken up by the country's development sectors.

As to be expected, the development priorities and PDP directions derived from the country context can differ from those expressed by the urban, rural, and outer island communities. Under the social output of progressing the quality of people's lives, the country context priorities are focused on broad programs to improve the quality of education, resolve NCDs, and build a social protection framework. The rural and outer island communities' social priorities revolve around broad programs of assistance, increased climate resilience, and sustainable food security. The urban communities are focused on improved facilities and direct social assistance.

Regarding the cultural pillar, to nourish Palauan culture and identity, the country context focuses on education programs to raise awareness and promote Palauan culture. The rural and outer islands' priorities also focus on offering cultural programs. Moreover, they prioritize the restoration of cultural sites and providing a functioning network of cultural centers. Maintaining cultural sites and practices is a priority for urban residents.

The country overview for the PDP pillar to maintain the environment and counter climate change covers policy and management concerns in addition to broad and targeted programs. Rural and outer Islands and urban communities prioritize waste disposal, sewage, potable water, and land erosion.

For the "restore economic growth" pillar, the country context emphasizes the need for new, broad land and labor policies in support of both social and economic growth and to continue to improve the fiscal situation and reform public finances. The rural and outer islands share a concern for improving enabling conditions for economic growth. The rural and outer islands also specifically prioritize support for small businesses and for more tourism products and skills in tourism. Urban communities express concern over the expense of utilities and the need for more jobs.

Lastly, concerning strengthened governance for growth, the country overview and the rural and outer islands communities share a common concern to improve policy development and policy, spatial, and budgetary planning. For the rural and outer island communities, this concern stretches to the need for strengthened technical planning, engineering, and analysis. The country context recognizes the need to design and implement strategies to improve the environments for business and government performance whereas the rural and outer island communities prioritize

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direct assistance to small businesses. The urban communities and the outer islands are also concerned with public safety and better access to information.

A development strategy has been prepared for each of the 16 development sectors by contrasting the sector's development goal with an assessment of the sector's status and trends. The strategy can then justify priority sector programs and projects for the period of the PDP. The country's sectors are identified as agriculture, education, energy, environment, financial services, fisheries and aquaculture, health, housing, information and communications technology, justice and public safety, solid waste management, tourism, transport – air, land and marine, and water and sanitation.

Several sectors including agriculture, fisheries, housing, and tourism emphasize the need for more comprehensive sector assessment and for the formulation of policy. The health sector also needs to strengthen policy planning. The energy, marine transport, water, and sanitation sector strategies are primarily concerned with future economic viability and sustainability. Agriculture, solid waste management, and of course, environmental strategies are all concerned with the sustainability of the natural environment.

Education, health, justice and public safety, and water and sanitation focus on improved management whether through upgrading and incentivizing staff and, or by other means to improve efficiency and effectiveness. Agriculture and the Environment seek better management of Palau's natural resources. The financial services sector references the need to improve the environment for business including financial transactions. ICT, air transport, land transport, and marine transport are all concerned to continue to further develop their sectors to serve the needs of Palau's growing society and economy.

Sector strategies are financed and otherwise **implemented** by reference to a summary one-page framework that links the proposed government budget for priority development programs and projects with government outputs and then, in turn with sector outcomes and national impact. The framework identifies benchmark and target indicators to allow sector progress to be monitored and assumptions and risks that help identify where development coordination is needed to realize sector progress.

Not all priority development programs can be immediately funded, nor may they be ready for consideration for funding. All priority development projects were subjected to an assessment of their legal, financial, technical, and other **readiness**. Twenty-seven out of a total of 75 projects were assessed as being ready for consideration for funding; that is, incurring no objections.

The readiness-selected programs and projects were then **scored and ranked** according to their perceived impact on national development by a multi-Criteria Analysis. The assessment of the national context and community priorities and the sector strategies identified 130 priority development initiatives of a recurrent cost nature. These may not be infrastructure or other capital expenditures, and many initiatives may be of comparatively little cost, but they are nevertheless of importance to the growth and development of Palau.

The PDP will be **financed** by a mix of government and donor and development partner funds.

PDP **progress will be annually monitored** at the sector level as each sector performance monitoring and funding framework is annually updated every April to May in preparation for budget negotiations. An end-of-PDP **evaluation** will be prepared and presented

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at a Development Symposium to be held in November 2026. Sector progress over the 4 fiscal years of PDP will be summarized and an overall assessment will be made of progress with the 5 development pillars, over the entire plan period.

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BACKGROUND AND INTRODUCTION

ABOUT THE PALAU DEVELOPMENT PLAN

Objectives

In accordance with the President's vision and the objectives of the current administration, the national government launched a new Palau Development Plan (PDP) and process in 2022. The announcement of the launch was made during the 2022 Annual Economic Symposium which took place on November 17, 2022, at the Ngarachamayong Cultural Center. The PDP is a 4-year medium-term plan covering the period 2023 to 2026. It builds on and updates all prior national and sector plans. These include the Palau 2020 National Master Development Plan, the Medium-Term Development Strategy of 2009 to 2014, and the first Voluntary National Review of the SDGs that was prepared in 2019.

Community priorities reflect the mandate of PNCA 31 § 102 (Trust Territory Land Planning Act), which decrees that each State Government develop a state master plan that covers economic, social, cultural, and environmental conditions. As constitutional resource owners of all land and waters to 12 nautical miles, States have the sole right and responsibility for land use planning. Master Plans reflect the 10-year development priorities of the States.

The PDP Process

A National Oversight Committee consisting of high-level representatives of National and State Governments as well as non-governmental organizations and other stakeholders oversaw the preparation of the plan. A Core Group of planners and other officials were responsible for incorporating the views of all communities, for plan design and drafting, and for preparing the implementation and progress monitoring of the plan.

The Office of the President had overall responsibility for implementing the exercise while the Ministry of Finance was responsible for the project, leading plan preparation and execution on behalf of the Office of the President.

Stakeholder Engagement and Consultations

Extensive discussions with all communities took place under the Koror-Babeldaob Island Resilient Urban Development Strategy and Action Plan (KBRUDSAP) just prior to the preparation of the PDP.[1] The government further discussed the development priorities of the PDP with all communities, non-government organizations, the private sector, State Governments, State-Owned Enterprises, and all Ministries, and Departments. A list of all contributors to the PDP is included on the Ministry of Finance website.

[1] ADB. 2020. Koror-Babeldaob Island Resilient Urban Development Strategy and Action Plan Volume 1: Main Report and Volume 2: Appendices. Manila.

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State Master Plans were developed through an intensive participatory process between 2021 and 2023, via legislated State Planning Commissions or authorized state planning teams. In early 2023 State Master Plans were going through formal approval processes per individual state requirements. The Palau Governors Association supervised the process of summarizing and collating common themes in State Master Plans for this PDP.

Urban priorities were derived from ongoing work on building resiliency and from a random sample survey of Koror State community priorities conducted by the Koror State Government in March 2023.[2]

PREVIOUS PLANS

Previous national development plans were:

- Economic Development Plan (EDP), 1995 – 1999 https://www.palaugov.pw/wp-content/uploads/Economic-Development-Plan-EDP-1995-1999.pdf
- Palau 2020 National Master Development Plan (NMDP) that was published in 1996. https://www.palaugov.pw/wp-content/uploads/Palau-2020-National-Master-Development-Plan-NMDP.pdf
- Palau Public Sector Investment Program (PSIP), 2003 -2007 https://www.palaugov.pw/wp-content/uploads/Public-Sector-Investment-Program-PSIP-2003-2007.pdf
- 2013. Management Action Plan (MAP) https://www.palaugov.pw/wp-content/uploads/Management-Action-Plan-MAP.pdf
- Actions for Palau's Future. 2009-2014. Medium-Term Development Strategy (MTDS) https://www.palaugov.pw/wp-content/uploads/Actions-for-Palaus-Future-2009-2014.pdf
- 2019. Pathway to 2030. Progressing with Our Past Toward a Resilient, Sustainable and Equitable Future 1st Voluntary National Review on the SDGs https://www.palaugov.pw/wp-content/uploads/Pathway-to-2030.pdf
- National Infrastructure Investment Plan. 2021 (NIIP) https://www.palaugov.pw/wp-content/uploads/National-Infrastructure-Investment-Plan-NIIP-2021.pdf

The Transition Report to President-Elect Surangel S. Whipps, Jr. of January 2021 is incorporated into all sector strategies and Ministry plans in the new PDP.[3]

The EDP was the first plan developed for Palau. It was prepared in 1994 under Section 231 of the Compact of Free Association (COFA). The EDP focused on the development of a five-year capital spending program.

The NMDP was a comprehensive development plan. It was well accepted by all interested parties as a road map for development up to 2020. It was adopted by the Olbiil Era Kelulau as the nation's official development plan. The key development goals were: (i) to increase real economic growth per capita on a sustained basis; (ii) share the benefit of economic growth on an equitable basis; and (iii) enrich and enhance confidence in the Palauan culture, raise the national conscience, and protect the natural environment of Palau. Institutional building and policy formulation was a strong focus of the NMDP.

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[2] Koror State Government. 2023. Koror State Community Priorities. Koror.
[3] Transition Committee. 2021. Transition Report to President-Elect Surangel S. Whipps, Jr.

The MAP and PSIP were further attempts to implement the NMDP. The PSIP established Palau's public sector infrastructure priorities from 2003 to 2007. The program incorporated prior planning infrastructure documents, including the NMDP, the MAP, and recommendations from the 'Study for Promotion of Economic Development in the Republic of Palau' ("JICA Study").

The MTDS was a collation of a series of studies on sectoral issues and areas of institutional reform and policy development. Its objectives were to (i) update the NMDP, (ii) enhance economic policy formulation, (iii) develop sector-specific policy recommendations in agriculture, aquaculture, fisheries, labor market, human resource development, education, and health to deliver NMDP objectives, (iv) provide policy recommendations for increased government revenue to meet ongoing financial demands and new objectives from the NMDP, (v) assess existing infrastructure stock and future infrastructure needs, (vi) suggest policies for financing infrastructure operation and maintenance costs and (vi) policies to mainstream environmental protection.

Progress with earlier national plan objectives and commitments has been tracked by the Bureau of Budget and Planning of the Ministry of Finance. Many of the earlier development projects and programs were realized.

Previous State development plans were:

- State Master Planning effort, the late 1990s
- Resource Management and Development Suitability Study for the States of the Republic of Palau. Published in 2003. (Also known as the MWM Study).
- Airai State Master Plan. 2012. (Adopted)
- Melekeok State Master Plan. 2012. (Draft)
- Ngardmau State Master Plan. 2015. (Draft)
- Koror-Babeldaob Regional Urban Development Strategic Action Plan. 2020.

These early versions of state plans were implemented only in part and progress was not tracked.

A new, participatory Rural State Master Planning initiative was launched in 2020 through a GEF6[4]-funded project based at the Ministry of Agriculture, Fisheries, and the Environment (MAFE) entitled "Integrating biodiversity safeguards and conservation into development" (also known as the Palau Biodiversity Project). This initiative combined master planning (identification of goals, objectives, and CIP priorities) with land use planning and zoning, conducted by authorized (and eventually legislated) Planning Commissions. Through the project, master plans for all 10 States on Babeldaob and Peleliu were completed by late 2022. Master planning was then initiated with teams from the outer islands of Kayangel, Angaur, Sonsorol, and Hatohobei and was only partially complete at the time the PDP was drafted. Priorities for outer islands were thus identified from draft master plans and through the Governors Association. Koror began an urban and lagoon resilience planning initiative in early 2022, in partnership with the Great Barrier Reef Foundation, to identify multi-sector development challenges and solutions.

The Palau Biodiversity Project began just as an ADB-funded planning initiative called the "Koror-Babeldaob Regional Urban Development and Strategic Action Plan" (KBRUDSAP) was

[4] Global Environment Facility 6th Replenishment. Funds accessible to countries show are signatory to the Convention on Biological Diversity (CBD), Convention to Combat Desertification (UNCCD), and UN Framework Convention on Climate Change (UNFCCC).

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finishing in 2020. The KBRUDSAP identified key priority areas in need of detailed further planning: land use, subdivision/housing, tourism site, transportation, and state governance planning. It also created a multi-criteria spatial analysis tool to assist with housing suitability analyses and to increase data-driven land use planning. The priorities in the KBRUDSAP were incorporated into the Palau Biodiversity Project (GEF6), and likewise, the priorities from State Master Plans are incorporated into the PDP. A list of all prior national and state plans and all other references is included on the Ministry of Finance website.

Time has passed, peoples' preferences have moved on, global climate and economic and social conditions have all changed presenting new challenges, and new technologies allow for new development approaches and opportunities. All earlier national and most prior state development plans are consequently now largely out-of-date and need to be updated.

The challenge confronting the government and people now is to continue prior progress under the PDP and strengthen future planning processes including integrating the state development plans into national planning.

LONG-TERM VISION

To substantially enhance the quality of life of current and future generations of Palauans.

MEDIUM-TERM OUTCOME

The intended outcome in support of the vision is that well-established processes and programs will have been put in place by 2026 to improve standards of living, reaffirm Palauan culture, sustain the environment, grow the economy, and continue to strengthen good governance.

THE COUNTRY CONTEXT

OUTPUTS

The intended outcome is broken down into the following outputs or pillars of the country's development. By the end of the plan period, Palau will have:

- A healthy, educated, food-secure, and productive people who go home to a social, cultural, economic, and environmental setting that attracts Palauans to remain in or return to Palau, ***bemrei ede kaingeseu***. There are ample opportunities for the pursuit of livelihoods and the cost of living is affordable. Good quality and affordable basic services are accessible to all and there is a system of social protection in place to assist the vulnerable and those who fall into hardship. (This collection of outputs is summarized as "**Progress the quality of social support**")

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- More Palauans speaking their language and practice their culture. Economic growth will respect Palauan cultural and natural heritage. Growth and development will safeguard cultural and natural resources, and there will be planned mitigation for environmental, historical, or cultural losses. (Summarized as "**Nourish Palauan culture and identity**")

- Investments that accommodate the environment and climate change. Climate change and disasters are managed, and loss and damage are assessed. Well-managed energy, water, and sewerage. Minimized pollution, degradation, and other impacts. New resource development policies. (Summarized as "**Maintain the environment and counter climate change.**")

- Diversified economic growth that incorporates a focus on small business and collective benefits and is otherwise aligned with Palauan values. Increased and higher paying jobs. Increased government revenues. Reformed State-Owned Enterprises (SOEs), civil service pension fund, social security, and State Government finances. Increased private investment. New land and labor policies are implemented. (Summarized as "**Restore economic growth**.")

These 4 pillars of the nation's development are underpinned by a fifth pillar or foundation of good governance and partnerships. The stronger governance and partnerships are the more likely it is that investments in the public and private sectors will yield the required growth and development. This fifth pillar or foundation is summarized as **"Governance for Growth"**.

STATUS, TRENDS, AND PLAN DIRECTIONS AT THE COUNTRY LEVEL

Progress the Quality of Social Support

Background – Population

The total population of Palau has remained static at around 17,600 people for the past ten years and longer because of relatively low fertility[5], emigration, and controlled immigration. A GAO report estimates there are some 3,435 (+/-707) Palau-born persons living in the 50 US States[6] with a much larger population of second-generation Palauans living in the US. With 78% of the population resident in Koror and Airai, Palau is one of the most highly urbanized Pacific Island countries and despite government policy to encourage Palauans to return to their home states, especially in Babeldaob, the actual distribution of people remains largely unchanged. The number of non-Palauans has grown from 1,500 people in 1986 to 5,178 in 2020 reflecting the increased need for workers in the tourism and tourism-related industries. (See Table 1).

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[5] The total fertility rate (TFR) in Palau fell from around 2.8 in 1990 to approximately 2.0 by 1998, where it has remained over the last 15 years. Fertility rates declined among women aged 15–34 between 1989 and 1998, which is consistent with the decrease in TFR seen over this period. There was minimal change in fertility rates among women aged 35 and older for the 20+ year period shown. While there was significant variation in terms of which age group demonstrated the highest fertility rates, rates among women aged 20–34 were similar over the time periods shown. Teenage fertility rates declined from approximately 50–75 births per 1000 women aged 15–19 in 1990 to approximately 25–35 births in the late 1990s. From about 1998 onwards, the teenage fertility rate has remained in the 25–35 range, demonstrating a pattern similar to that of the TFR. From: Pacific Community. 2019. Fertility Trends in Pacific Island Countries and Territories. Noumea

[6] United States Government Accountability Office. 2020. *Report to the Chairman of the Committee on Energy and Natural Resources*, US Senate Compacts of Free Association Populations in US Areas Have Grown, with Varying Reported Effects. Washington D.C.

Table 1: Key Demographic Indicators

	2000	2005	2012	2015	2020
Total population	19,129	19,907	17,445	17,661	17,614
Urban population (%)	80.5	77.4	81.4	78.9	78.0
Palauan population (%)	69.9	72.5	73.5	73.0	70.6
Population growth (%)	2.1	0.8	-1.9	-1.7	0.1

Source: Palau Population Censuses.[7]

Outside of Koror and Airai, most States have very small populations of just a few hundred people. Most States on Babeldaob island saw growth in their population between 2015 and 2020 at a rate of 2% to 22%; two States in Babeldaob saw a population decline of -0.3% to -4%. Population growth or decline was more variable in the outer islands, with a range of -32% to +36%. Each rural state has goals of increasing the population living and working in the state to drive economic growth and cultural revitalization. Similarly, many people living in Koror identify as being from another state, and have personal goals of returning to their home state.

As projected by the Pacific Community the total population is expected to remain constant through 2030 and then slowly decline.[8] The population will also likely remain highly urbanized with most people living in Koror and Airai unless significant investment can be attracted to other islands, including Babeldaob. The Pacific Community projects an aging population structure in Palau (see figures 1 and 2).

Figure 1: Palau Population Pyramid, 2022

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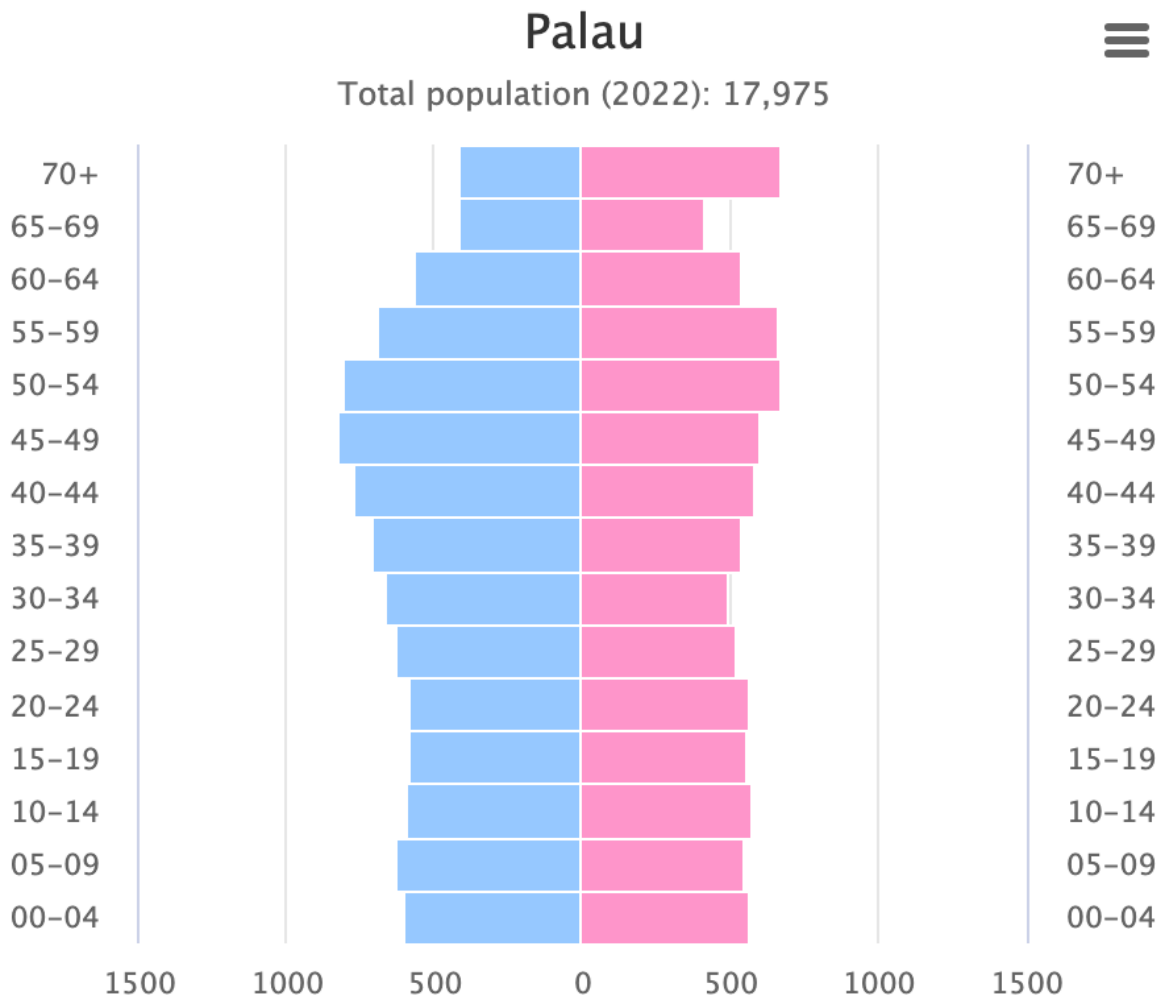
[7] Government of Palau Office of Planning and Statistics. *2020 Census of Population, Housing and Agriculture*.
[8] Pacific Community (SPC) 2020. Statistics for Development Division: https://sdd.spc.int/pw



Source: Pacific Community and Statistics for Development Division. Pacific Island Populations. https://spccfpstore1.blob.core.windows.net/digitallibrary-docs/files/1e/1e1bf203a79901a28e471a392a21d466.pdf?sv=2015-12-11&sr=b&sig=DZcSu90q43KzJU86sfoIV8pM8%2BLTb5wVx0ljdMUyrm4%3D&se=2022-01-08T03%3A23%3A44Z&sp=r&rscc=public%2C%20max-age%3D864000%2C%20max-stale%3D86400&rsct=application%2Fpdf&rscd=inline%3B%20filename%3D%22Pacific_Islands_2020_Populations_poster.pdf%22.

Figure 2: Palau Population Pyramid, 2030

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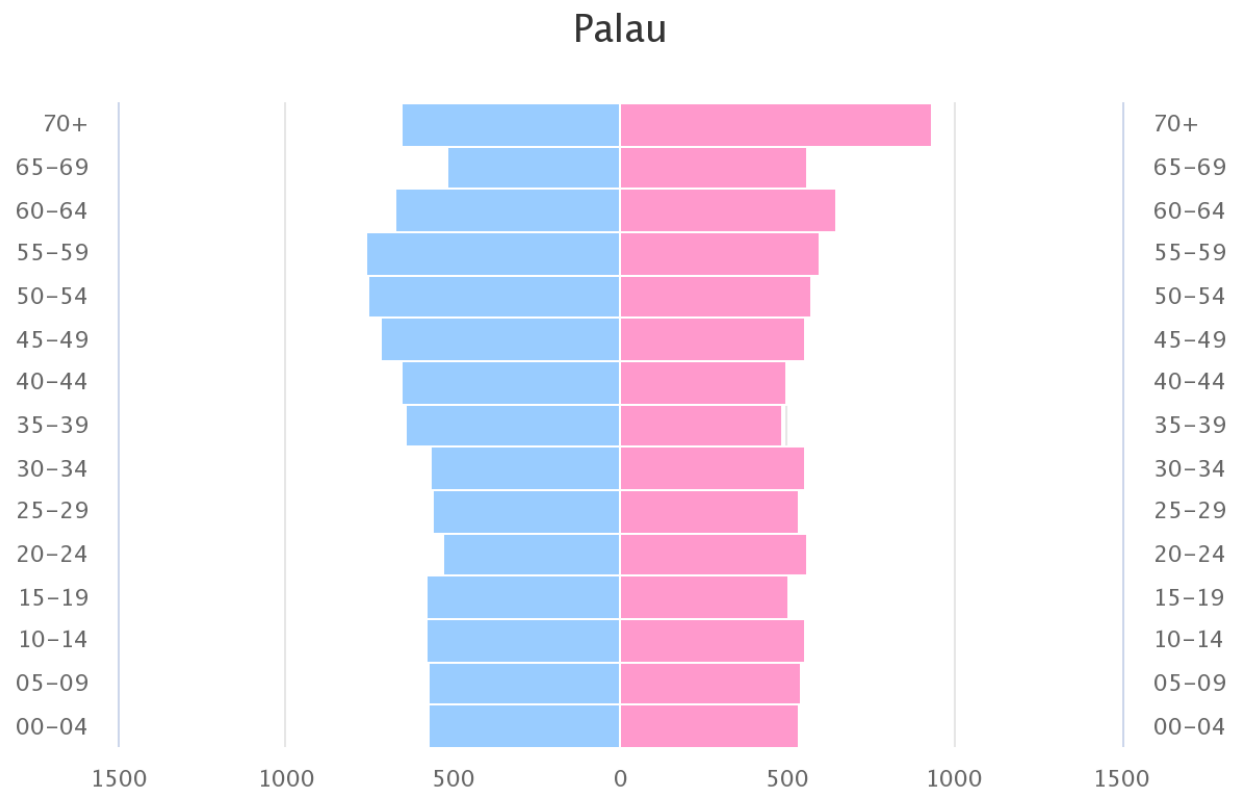

Source: Pacific Community and Statistics for Development Division. Pacific Island Populations. https://spccfpstore1.blob.core.windows.net/digitallibrary-docs/files/1e/1e1bf203a79901a28e471a392a21d466.pdf?sv=2015-12-11&sr=b&sig=DZcSu90q43KzJU86sfoIV8pM8%2BLTb5wVx0ljdMUyrm4%3D&se=2022-01-08T03%3A23%3A44Z&sp=r&rscc=public%2C%20max-age%3D864000%2C%20max-stale%3D86400&rsct=application%2Fpdf&rscd=inline%3B%20filename%3D%22Pacific_Islands_2020_Populations_poster.pdf%22.

If the current demographic trends continue, an aging population will place greater demands on public services in the form of social protection and specialist health services, particularly for elderly women.[9] At the same time, the smaller child population will result in reduced demand for basic education (K-12) services.

Background - Health[10]

Palau has achieved relatively high standards of health and made significant progress toward achieving the health-related sustainable development targets (SDG 3).[11] Life expectancy is 77.8 years for women and 68.1 years for men.[12] The convergence of improved standards of living and good health services, especially public health services, has led to effective

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[9] For recent comment see: David E. Bloom, Leo M. Zucker. 2022. *Aging is the Real Population Bomb.* IMF. https://www.imf.org/en/Publications/fandd/issues/2022/12/aging-is-the-real-population-bomb-bloom-zucker?utm_medium=email&utm_source=govdelivery

[10] More detailed coverage is provided in the health and human services sector strategy.

[11] Government of Palau. 2019. *Pathway to 2030: Progressing with Our Past Toward a Resilient, Sustainable, and Equitable Future; 1st Voluntary National Review on the SDGs*. Ngerulmud. Government of Palau. 2019. First Voluntary National Review of the SDGs. Koror

[12] Pacific Community. 2023. *Life expectancy, mortality, and causes of death*. Statistics for Development Division. Life expectancy, mortality and causes of death | Statistics for Development Division (spc.int)

management of many communicable diseases which in turn has raised life expectancy and reduced infant and child mortality. Lifestyle changes, however, have spawned an epidemic of non-communicable diseases (NCDs) that threaten to erode past gains in life expectancy and quality of life while requiring life-long management at a significant cost. Over the past decade, the leading causes of death have been heart disease, cancer, injuries, diabetes, and chronic respiratory and kidney diseases. Collectively, NCDs account for over 70% of all deaths. Palau also has a high prevalence of mental health disorders, especially schizophrenia. The high prevalence of NCDs and mental health disorders strains health sector capacity and funding and fuels an increasing need for social protection. NCDs also undermine labor productivity and the competitiveness of Palauan labor. The multi-faceted impacts of NCDs led the government in 2011 to declare NCDs a national health emergency,[13] an action that has spawned significant changes in health sector operations and encouraged whole-of-government and whole-of-society partnerships to prevent NCDs.

According to the government's report on SDG progress, no one goes hungry.[14] However, many people do not eat a nutritionally optimal diet and as a nation, Palau is overly dependent on food imports resulting in dangerous insecurities (SDG target 2.2). Food insecurity, especially insufficient supply and high cost of healthy local foods is in turn a major risk factor for NCDs.

A National Health Insurance Fund launched in 2010 provides universal financial coverage for health care delivered in Palau and subsidized cover for most residents (94% in 2020) for pre-approved off-island care. With the National Health Insurance (NHI) Fund, Palau has achieved near-universal health coverage (SDG 3.8) albeit the challenge remains to close gaps while managing rising costs. Palau has a relatively highly skilled health professional density of 7.20 per 1,000 people, well above the Sustainable Development Goal minimum threshold of 4.45 per 1,000 people.[15] There is an efficient overseas referral system that subsidizes off-island care through the NHI for services unavailable in Palau.

Although prevention and management of NCDs are now the focus of the health sector, the experience from the COVID-19 pandemic underscores the vulnerability that arises from global transportation links that allow for rapid movement of people and diseases across borders together with a changing climate that fuels new and re-emerging health threats. Consequently, disease preparedness and surveillance remain sector priorities as well.

Rural and Outer Islands

Access to nutritious and affordable healthy food is a challenge for communities outside of Koror and Airai, where there are no supermarkets. Small stores carry limited fresh foods, most purchased from larger stores in Koror and thus priced higher. Availability of fresh food at local markets ("makit") varies. Ngatpang, Melekeod, and Ngchesar have weekday daily markets, Airai (in partnership with PVA), Ngaraard and Ngardmau have twice-monthly weekend markets, and Ngeremlengui has a monthly market. Many families outside of Koror and Airai farm or fish to supplement their diets, although sales of such produce are more lucrative at stores or markets. Four percent of all farms are exclusively commercial, but 50% of all farms sell some portion of their products at the market.[16] Increasing food security is an immediate priority for Palau's communities.

[13] Office of the President. May 11, 2011. Executive Order 295.
[14] Government of Palau. 2019.
[15] Government of Palau. 2019.
[16] NEPC. 2019. (2019 SOE from 2017 PALARIS Farm Survey.)

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Distribution of recreational facilities varies, and while some villages have playgrounds, many communities lack parks, sidewalks, sports facilities, community programs, or other amenities that contribute to healthy living. Increasing access to childcare is a medium-term priority for communities.[17]

A network of community health facilities accessible by road or boat provides adequate access to health services for most community needs. During emergencies, the distance to the only hospital in Koror is a challenge. Improving hospital facilities and increasing the number of medical professionals in communities is a long-term priority for communities. Improving transportation for outer islands, for health and multiple other purposes, is an immediate priority.

Water quality in rural water systems varies with location but can be poor due to high turbidity and the introduction of coliform, leading to a risk of water-borne illnesses. Water sources are vulnerable to climate change (including saltwater intrusion, drought, and storm-fueled sedimentation). Homes that are reliant exclusively on water tanks are also at higher risk of water-borne illnesses carried by vectors such as rats. Improving and stabilizing access to clean, potable water is an immediate priority for all communities.

Background - Education and Training[18]

Palau has achieved universal primary education and near-universal secondary education. Given current demographic trends, there will be little, if any, increase in school enrolment in the coming years. According to the 2020 Census of Population, Housing, and Agriculture, 79.5% of persons 25 years and over were high school graduates or with higher education.[19]

Education levels are high, and the proportion of the population holding an associate degree or higher has steadily increased with females having a significantly higher rate of educational attainment than males, especially at the associate degree level or higher. Having achieved universal education, more effort is needed to improve the quality of teaching and learning needed for students to thrive in a rapidly changing highly digitized world (SDG target 4.1). By law, teachers are required to hold at least an associate degree. Although many still fall short of this qualification, the trend is toward an increasingly educated workforce reflecting investments being made in education workforce development. (See Table 2).

Table 2: Palau Public School Teachers Qualification Level

School Year	Total public school teachers	High School Diploma only	High School + Some College	Associate Degree	Bachelor's degree	Master's Degree
SY 2021-22	232	28.7%	0.8%	44.7%	21.1%	4.6%
SY 2020-21	229	29.3%	1.3%	47.6%	17.5%	4.4%

[17] Only immediate priorities from State Master Plans are included in this Palau Development Plan.
[18] More detailed coverage is provided in the education sector strategy.
[19] Government of Palau Office of Planning and Statistics. 2020.

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SY 2019-20	232	37.9%	0.9%	38.4%	19.4%	3.4%
SY 2018-19	225	36.0%	0.9%	39.1%	20.0%	4.0%
SY 2017-18	226	38.1%	0.9%	36.4%	20.4%	4.0%

Source: Palau Ministry of Finance. (2022). Palau Statistical Yearbook [Table 11.15]

Another of Palau's most pervasive problems is the loss of its most highly educated youth. Students who study abroad are often enticed by substantially higher wage rates and greater career opportunities to remain abroad after finishing their education. Besides wage differentials, the shortage of affordable and secure housing opportunities at home is recognized as a further inducement for young Palauans to remain overseas.

Consolidation of schools under the public school system means that residents in many States must send children to another State for school. While this is not ideal, communities recognize that the situation is out of their control. Community priorities for education, therefore, revolve around community cultural and environmental programming to ensure a place-based sense of identity and ongoing sense of stewardship for local resources. A key priority is to transfer knowledge held by elders to youth. The expansion of cultural education is an immediate priority. The lack of financial literacy and understanding of business is another concern.

Rural and Outer Island State Governments have prioritized capacity building and training in social and economic sectors for government employees and residents to improve the effectiveness of governance and improve economic conditions. Investment in training programs is a medium-term priority once other governance improvements are in place.

Employment

Strong features of the labor market are the near full employment of the labor force (table 3) and, as noted previously the import of foreign labor, and the loss of skilled Palauans overseas. The gap in male-female participation rates has narrowed. At 0.7% (2020), the level of unemployment is very low thus driving demand for foreign labor. Nominal wages in the public and private sectors in Palau have grown since FY2000 by 2.3 and 2.6 percent, respectively, with public sector wages being 79 percent above those in the private sector. The government recently approved an increase in the minimum wage from $3.50 an hour by $0.75 in FY23 with a further increase of $0.75 in FY24 bringing the new minimum wage to $5.00 per hour. The labor market was disrupted by the necessary response to COVID-19 with an estimated loss of 1,692 jobs, 14.8% of the FY2019 level.[20]

Table 3: Working Age Population, Economically Active and Not Active

	Percent				
	2000	**2005**	**2012**	**2015**	**2020**
Working age population					
Labor Force	67.5%	69.1%	68.1%	77.4%	79.4%
Employed	97.7%	95.8%	95.9%	81.8%	86.5%

[20] GSUSA EconMap. 2022. *2022 Economic Brief*. Republic of Palau.

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Employee - public sector	29.3%	34.7%	34.4%	37.4%	40.3%
Employee - private sector	69.3%	59.8%	55.8%	58.6%	53.9%
Self-employed workers	1.1%	5.4%	7.8%	3.5%	5.5%
Unpaid family worker	0.4%	0.1%	2.0%	0.4%	0.3%
Unemployed[1]	2.3%	4.2%	4.1%	1.7%	n.a.
Not in Labor Force	32.5%	30.9%	31.9%	22.6%	20.6%

Source: Palau Population Censuses

Table 4 illustrates the importance of tourism to total employment.

Table 4: Tourism Employment

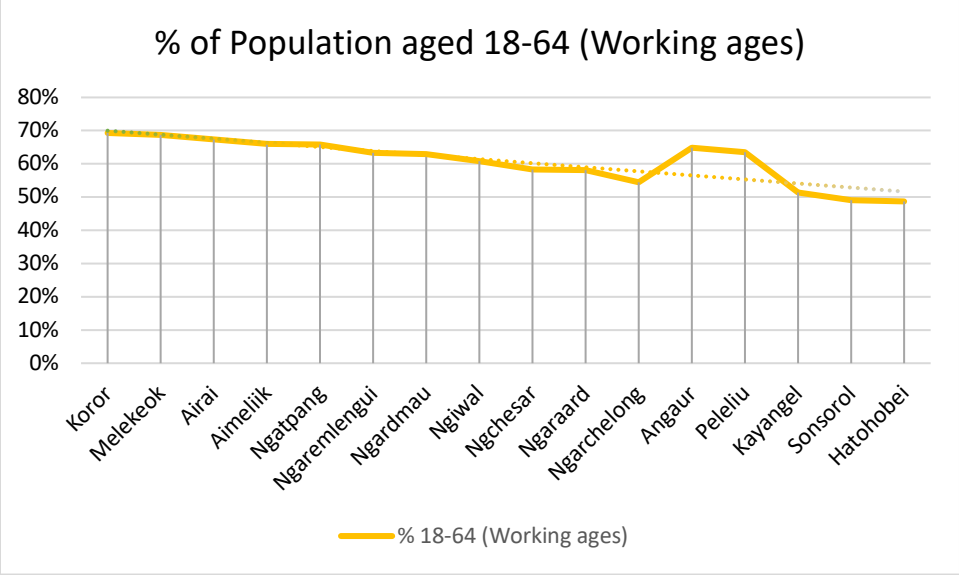
	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Tourism employees as % of private sector	46.0	46.1	45.6	44.6	44.7	42.5	40.8	38.6	31.0	19.4

Source: Palau Population Censuses

Tourism offers the most viable opportunity for growth in employment, and every State and community outside of Koror wishes to grow the total number of products offered and tourists who visit communities. Sharing of economic benefits is a core value for communities, as is maintaining and enhancing cultural and natural resources and heritage. Investment in food production is a primary priority for communities, with investment in tourism development following in importance.

The States on Babeldaob Island have a slightly lower percentage of residents who are aged 18 to 64 (working age) at 55% to 69% compared to Koror at 69%. The outer islands have even lower percentages of residents of working age (49-65%). With such small populations, acquiring a workforce in the States is a challenge. See Figure 3.

Figure 3: Percentage of Working Age Population by State



In the rural and outer islands, State Governments are the primary employers in the community, generally for low-skilled positions. Rural and outer island communities wish to

diversify and expand private businesses and thus provide alternative employment opportunities for residents. Supporting small business establishments, particularly in key industries that are needed to ensure social protections such as food security, is an immediate priority. Growing the local economy through diversification is a key aspect of encouraging people to move home.

If current demographic trends continue, the future population of Palau cannot be expected to place much greater demand on total levels of employment in the post-COVID era. Alternatively, skilled Palauans have long been attracted to emigrate to higher rates of remuneration and career opportunities overseas. The current tight labor market in the US has reportedly led to US companies seeking to hire skilled Palauans. Palauans currently living overseas could be attracted to return to work in the country if skilled and higher salaried positions were created through increased private investment and domestic economic activity. This would require a realistic appraisal of and support for potential means to attract new private investment.[21]

A government statement of labor policy would help clarify future employment needs, associated education and training requirements, the government's position on immigration, support for new labor standards, and labor rights, and better direct the required labor market legislation and regulations.

Gender

Palau is a matriarchal and matrilineal society, in which women have traditionally held positions of power and respect equal to those of their male counterparts (footnote 11). The Constitution of the Republic of Palau guarantees women equality under the law. The Palau National Gender Mainstreaming Policy further guarantees the equal rights of men and women to participate in all spheres of life in an atmosphere of equality.[22]

Available data tells us that women in Palau generally have higher levels of education and better health than men, but they are less likely to be employed in the formal sector of the economy. In the 2015 Palau Census, women in the public sector were found to earn more, on average, than their male counterparts.[23] Women are additionally well represented at the senior levels in the judicial branch of the government and in policy-making positions in the executive branch[24]. However, they remain underrepresented in the Palau National Congress (Olbiil Era Kelulau), the cabinet, and in elected offices at the state level. Women's lower levels of participation in the formal workforce and many of the formal decision-making structures mean that investment decisions can fail to consider women's needs and concerns.

The burden of childcare generally falls on women, and the number of childcare facilities available outside of Koror is limited. A minimum number of children must be present to trigger new Head Start facilities, which is difficult to achieve in States with small populations. Families making above the income threshold have almost no access to childcare in the communities and generally rely on older female relatives for childcare. Given high rates of NCDs and an aging population, the need for adult caregiving is also growing. Women carry a disproportionate burden of adult caregiving. Men's and Women's Groups, Youth Groups, and Councils of Traditional Leaders are strong in most communities and have an active role in community development.

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[21] See the coverage of private sector development in the governance pillar below.
[22] Government of Palau. Ministry of Community and Cultural Affairs. 2018. National Gender Mainstreaming Policy Republic of Palau. Final Draft. Ngerulmud
[23] UN Women, Palau 2022: https://asiapacific.unwomen.org/en/countries/palau
[24] Government of Palau. Palau *2013/2014 HIES Gender Profile*. Ngerulmud

The Palau National Gender Mainstreaming Policy is a key policy document that calls for the integration of gender considerations into policies and programs (footnote 22). Gender mainstreaming is a technical and political process requiring a shift in organizational structures and ways of thinking as well as in goals, structures, and resource allocation. A gender lens will encourage a practice of development that has the potential to contribute to the commitment of the Palau National Gender Mainstreaming Policy – 'tabesul omesiou el mora rebek lechad' – to the principles of social justice and to a more balanced approach to meeting the needs of women and men in Palau.

Development is the process by which vulnerabilities are reduced and capacities increased.[25] People do not have the same starting point in a social system, and as such have very different capacities to take advantage of current circumstances or of change. Frameworks, therefore, become critical in formulating and implementing policies and programs which do not exclude or harm men or women, take their needs and perspectives into account, and which may help address some of the existing gender imbalances. More critically, there needs to be an integration of the cultural context into existing frameworks because experience is not universal.

Gender frameworks need to be supported with different methods including data collection. The Palau National Gender Mainstreaming Policy advocates for an accountability mechanism supported by the production of sex-disaggregated data and gender indicators that can be used to monitor the impacts of programs and services on women and men and to use in closing gender gaps when appropriate.

According to UN Women "In Palau, only 12.2% of indicators needed to monitor the SDGs from a gender perspective are available, with gaps in key areas such as unpaid care and domestic work, key labor markets indicators such as gender pay gap and skills in information and communication technology (ICT)" (footnote 23). Disaggregated gender data collection remains critical, as that would highlight the different experiences and conditions for men and women and would help policymakers craft responses that would benefit both men and women.

Background: Social Protection

Ending poverty and achieving equity are important themes that crosscut the 2030 Agenda for Sustainable Development (SDGs 1, 10, and 17).[26] Social protection is one part of a comprehensive strategy for sustainable human-centered development and Palau has incorporated SDG 1 (end poverty) Target 1.3. (Social protection) into its National SDG Strategy.[27]

> SDG Target 1.3. Implement nationally appropriate social protection systems … and by 2030 achieve substantial coverage of the poor and

The Asian Development Bank (ADB) defines social protection as government-initiated policies and programs designed to reduce poverty or vulnerability and involve the transfer of cash, in-kind assistance, or services directly to beneficiaries. ADB recognizes three categories of social protection (i) social insurance, (ii) social assistance, and (iii) labor market programs.[28] Social

[25] Andersen, M. and Woodrow, P. 1989. Rising from the Ashes: Development Strategies in Times of Disaster. Westview Press.
[26] United Nations Department of Social and Economic Affairs. N.d., The 17 goals. THE 17 GOALS | Sustainable Development (un.org).
[27] Government of Palau. 2019.
[28] ADB. 2003. "Social Protection - Our Framework: Policies and Strategies". Mandaluyong: Asian Development Bank.

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protection coverage can be measured using a social protection indicator (SPI) that allows comparisons to be made across time and countries. The SPI quantifies information about social protection expenditures as a percent of gross domestic product (GDP) per capita (see below).

$$SPI = \frac{social\ protection\ expenditure}{target\ beneficiaries} \div GDP\ per$$

The most recent calculation of the SPI for Palau was completed in 2021 using 2018 data.[29] In 2018, there were eleven programs in Palau that met the definition of social protection. Expenditures for these programs totaled USD$39.7 million, directly benefited 26,601 persons, and translated to an SPI of 10.38% of per capita GDP.

TABLE 5: PALAU SOCIAL PROTECTION EXPENDITURES AND BENEFICIARIES, 2018

Program Type	Expenditure (USD)	Beneficiaries (persons)
Social Insurance	**35,256,689.00**	**22,156**
Pensions	29,312,689.00	5,115
Health Insurance	5,944,000.00	17,041
Unemployment Benefit	0.00	0
Other	0.00	0
Social Assistance	**4,218,540.00**	**4,104**
Elderly Assistance	102,500.00	290
Child Welfare	2,806,801.00	3,477
Disabilities & Other	1,309,239.00	337
Labor Market Programs	**180,889.00**	**341**
Total	**39,656,118.00**	**26,601.00**

Social insurance (pensions and health insurance) represented 88.91% of total social protection expenditures and benefited 22,156 persons followed by social assistance representing 10.64% of expenditures and benefitting 4,104 persons (table 5). Labor market programs ($0.18 million expenditures, 341 beneficiaries) contributed only marginally toward the total.

Senior citizens (persons 60 years of age and older) received about 73.92% of the total social protection expenditures. This reflects the high contribution of pensions to the social protection total. Children received about 7.08% of total expenditures and persons with disabilities, 3.30% of total expenditures.

While men and women benefitted equally from social protection, persons living below the national poverty line and persons with disabilities received a smaller share of benefits. This again reflects the fact that pensions (social security and the civil service pension fund) account for almost two-thirds of social protection expenditures and higher-earning civil service retirees receive greater benefits than private sector or informal sector retirees.

[29] ADB. 2021. Republic of Palau: Updating and improving the social protection indicator for 2018. Publication pending.

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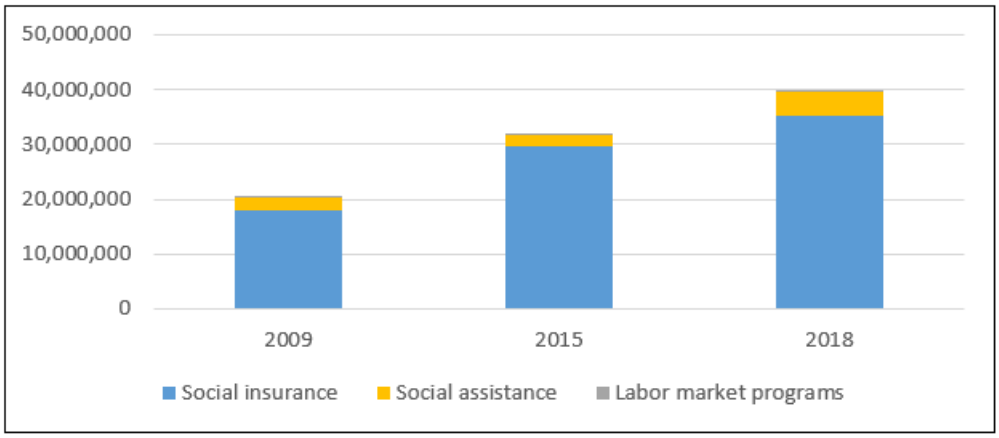
Between 2009 and 2018, Palau's social protection expenditures almost doubled (see Figure 4). This resulted from (i) an aging population with more people benefitting from pensions, (ii) increasing wages resulting in higher average pension benefits on retirement, (iii) government initiatives to increase retirement income (e.g., an across-the-board subsidy of $50 per month for every social security beneficiary), and (iv) introduction of the Palau Healthcare Fund in 2010 and its gradual expansion to near-universal coverage by 2018.

Figure 4: Trends in Social Protection Expenditures 2009-2018



Source ADB. 2021.

In response to the COVID-19 pandemic, Palau further increased social protection benefits, albeit on a temporary basis, for both citizens and non-citizens who lost income due to the near cessation of the tourism industry.

State Governments have an important role in providing social protection for Palau's most vulnerable people, especially because communities are so small and close-knit, and thus awareness of needs is high.

While the traditional system of "sharing and caring" within families and clans is the bedrock for social protection in Palau, it is widely recognized that the system is under stress because of social, economic, and demographic changes. While strengthening Palauan culture is a critical strategy for achieving social protection objectives, moving forward there will be an increasing need to supplement the cultural system with government initiatives that fill gaps in current programs to fulfill the objective of lifting vulnerable persons above the national basic needs poverty line (BNPL) with special attention to:

- Senior citizens who earned relatively low wages during their working years, especially those who worked in the informal sector, and as a result have low, or in some cases no, income during their retirement years[30]
- Persons with disabilities
- Caregivers for seniors, persons with disabilities, and the chronically ill; these caregivers often must leave the formal sector workforce to meet their social obligations to family and clan.

[30] Based on the 2014 Household Income and Expenditure Survey, 7% of senior citizens reported no income.

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- Low-income families with children, especially single-parent households, could benefit from an expansion of low-cost childcare options, targeted labor market support to assist parents to prepare for and find work, and transfer payments to help families respond to crises and rise above the poverty line.[31]
- Low-income families could benefit from increased access to assistance for home building and to furnish and equip homes, particularly in rural states.
- Victims of family violence, most but not all of whom are women, may need additional support through case management services, access to temporary housing, and access to labor market services.

In 2020 ADB funded a project to improve the capabilities of poor and vulnerable households to withstand further impacts of COVID-19, from 2021 to 2024. This consists of (i) welfare support to highly at-risk elderly and persons with disabilities; (ii) food security and income-generating support for small-scale agricultural producers; and (iii) multidisciplinary responses to address family and gender-based violence.

At present, there is no holistic social protection policy nor is there a government office specifically charged with a comprehensive social protection mandate. Reflecting on the experience of the COVID-19 pandemic, the government may wish to prioritize actions to address these structural and policy gaps in social protection during the plan period. The new Division of Human Services within the Bureau of Public Health could be a focal point for this work.

Vulnerability – Poverty

Palauans have traditionally conceived poverty in broader terms than simply low (monetary) income. Palauan (and Pacific) definitions of poverty include access to basic services, land, and ocean resources, and interpersonal relationships, as well as money.[32]

The last analysis of poverty indicators for Palau was based on the 2014 Household Income and Expenditure Survey (HIES). While the survey results are valuable, the situation has undoubtedly changed significantly due to the economic slowdown that accompanied COVID-19 and rapid increases in consumer costs (Table 6). The full impact of COVID-19 and inflation on poverty will not be known until the 2023 HIES is completed, and its data analyzed.

Table 6: Prices (annual percent change)

Fiscal Year	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22 (1st quarter)
Consumer Price Index	2.2%	-1.3%	0.9%	2.0%	0.6%	0.7%	0.5%	11.9%

Source: Palau Ministry of Finance.

The 2014 HIES enumerated 3,400 Palau residents living below the basic needs poverty line (BNPL) representing 19.4% of the population (table 7). In addition, there were 1,779 people classified as near poor (basic need poverty line + 20%) and therefore, in danger of slipping into

[31] Note that as a first step toward addressing the needs of low-income families with children, legislation enacted in 2023 provides funding for a $100 per month child subsidy for eligible families. Regulations to implement this legislation are being developed by MHHS.

[32] Government of Palau. 2019.

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poverty.[33] Despite a decline in the proportion of households below the BNPL between 2006 and 2014 (see Table 6), the proportion of the population classified as either poor or near-poor remained virtually unchanged (dropping by half a percentage point from 30% to 29.5%). This signals that measures to reduce poverty between 2006 and 2014 succeeded in raising people only slightly above the poverty line where they remain at risk of falling back into poverty due to economic disruptions or personal misfortune.

While poverty levels for female-headed households (20%) were somewhat higher than for male-headed households (18.6%), the more significant differential was between urban and rural households. Rural households were 50% more likely to live below the BNPL than urban households. From a regional perspective, poverty levels were highest for the more remote islands of Kayangel and Angaur (64.6% of their populations) and for East Coast Babeldaob (33.4% of the population). There was also a strong ethnic disparity with poverty levels highest among citizens from the Marshall Islands and the Federated States of Micronesia (34.2%), moderate for Palauans (21.1%), and lowest for Filipinos (12.7%).

Table 7: Poverty and Vulnerability, 2006 and 2014

	2006	2014
Basic need poverty line (adult equivalent per week)	US$58.05	US$67.46
Persons below basic need poverty line (%)	24.9%	19.4%
Persons vulnerable (basic need poverty line + 20%)	5.1%	10.1%
Total persons poor or vulnerable (%)	30.0%	29.5%

Source: Bureau of Budget and Planning and UNDP. (2017).

The 2014 HIES also revealed a comparatively high degree of income inequality, with a national income Gini Coefficient of 0.49[34] and the poorest 50% of households accounting for only 15% of the total household income.[35] With Gini coefficient estimates of 0.38 recorded in 2006 and 0.36 in 2014 inequality would appear to be increasing.[36] This likely reflects the difference in remuneration between Palauan and non-Palauan employees. Gini coefficients for the World Bank's East Asia and the Pacific region range from 0.28 in Kiribati (in 2019) to 0.42 in the Philippines (in 2018).[37]

As previously noted, despite Palau's relatively high SPI, there are few programs that specifically target low-income families with children. In considering future social protection

[33] Government of Palau, Bureau of Budget and Planning and UNDP Fiji Multi-Country Office. (2017). *Palau: Analysis of the 2014 Household Income and Expenditure Survey: Report on the estimation of basic needs poverty lines, and the incidence and characteristics of hardship and basic needs (Draft).* Ngerulmud, Palau: Ministry of Finance.

[34] "0" denotes absolute equality and "1" denotes absolute inequality. According to UNICEF, although there are no internationally defined standard cut-off values, it's commonly recognized that Gini index<0.2 corresponds with perfect income equality, 0.2–0.3 corresponds with relative equality, 0.3–0.4 corresponds with a relatively reasonable income gap, 0.4–0.5 corresponds with high-income disparity, above 0.5 corresponds with severe income disparity: https://www.unicef.cn/en/figure-27-national-gini-index-20032017

[35] Government of Palau. 2014. *Household Income and Expenditure Survey*. Ngerulmud

[36] Government of Palau Bureau of Planning and Budget. 2017. 2017 *Statistical Yearbook*. Ngerulmud

[37] World Bank. Gini Index – East Asia & Pacific: https://data.worldbank.org/indicator/SI.POV.GINI?locations=Z4

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development, these families could benefit from an expansion of low-cost childcare options, housing assistance, targeted labor market support to assist parents to prepare for and find work, and transfer payments to help families respond to crises and rise above the poverty line.

Vulnerability – Persons with Disabilities

The government has analyzed the disability data collected during the 2015 census. The census found 748 people reported some difficulties in seeing, 544 people reported some difficulties in mobility and 515 people reported some difficulties in memory. When disability is classified as 'having a lot of difficulty in functioning', 2.4% of the population was classified as disabled with higher disability rates among females (3.2%) than males (1.7%). The highest proportion of persons with disabilities is among the population aged 50 years and above (6.6%). East Babeldaob has the highest prevalence of disability, at 4.9%, followed by Airai (2.8%) and West Babeldaob (2.4%).

The census found no significant disparities between the living conditions of persons with disabilities compared to persons without disabilities. However, persons with disabilities are less likely to acquire education at the same level as their counterparts without disabilities. A bottleneck exists for the population with disabilities when transitioning to secondary and higher levels of education. This challenge is more visible in outlying states which present the lowest literacy rate of 25 percent for persons with disabilities. Only one in ten persons with disabilities is economically active.

Specific to children with disabilities, the Ministry of Health, and Human Services notes that despite universal health coverage, families of children with disabilities incur significant out-of-pocket expenses in caring for their children and since one parent often must quit work to care for the child, these families are at increased risk of poverty.

Vulnerability – Older Persons

Current Palau law defines a "senior citizen" as anyone 55 years of age or older. Since most persons in the 55-60 age group are employed, a more practical definition would be persons 60 years of age and older given that 60 is the usual retirement age. In 2020, there were 2,711 persons 60 years of age and older residing in Palau representing 15% of the population. As previously illustrated (Figures 1 and 2), due to demographic transition, the number of older persons is increasing and by 2050 older persons are projected to comprise 25% of the population.[38]

Recognizing that this demographic change represents a fundamental social and economic transformation, legislation enacted in January 2020 (RPPL 10-51, National Policy on Care for the Aging) created a task force to develop a National Policy on Aging and a plan for a Social Service and Care Center for the Aged to include permanent and temporary accommodations for older persons in need of housing.

In response to the OEK directive, MHHS working with the World Health Organization, community stakeholders, and older persons themselves has developed a National Policy on

[38] Olbiil Era Kelulau. 2020. RPPL10-51: An act to require the development of a comprehensive National Policy on Care of the Aging, to provide for coordination of services for aging Palauans, and for other related purposes.

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Aging supported by a 10-year strategic plan spanning the period 2023-2033. The policy envisages, "all individuals in Palau lead healthy and happy lives with dignity and respect in age-friendly environments" and has four objectives.

- Recognize there are cultural changes around aging, create a new culture of healthy aging through,
    - Support for social participation and empowerment of older persons
    - Increase understanding of and respect for older persons through intergenerational solidarity.
- Optimize the social environment for healthy aging through,
    - Age-friendly labor policies
    - Education policies that support lifelong learning.
- Create age-friendly physical environments through,
    - Safe and affordable housing that supports aging in place,
    - Transportation options that do not rely on driving to ensure that older persons remain independent and mobile.
    - Age-friendly public spaces.
- Transform health systems to address individual needs across the life course through,
    - Integrated, person-centered quality care,
    - Access to alternative long-term care models for aged persons in need of assistance,
    - Support for families and family caregivers,
    - Strengthening the geriatric and gerontology workforce to improve the quality of care,
    - Align primary health care to respond to an aging population,
    - Collaborate with public, private, and community stakeholders in support of healthy aging.

Short-term initiatives by the MHHS to support the policy include (1) expansion of the existing senior lunch program that serves only Koror to rural communities by partnering with the school lunch program (target date, FY 2025), (2) develop transportation services for seniors living in Babeldaob for medical appointments and other essential tasks, (3) expansion of home visitation by health workers to aged persons (initiated in FY 2023), and (4) operationalize the transition unit at the hospital for seniors who need continuous care (target, summer of FY 2023).

Vulnerability – Youth[39]

The term 'youth' refers to the period of transition from the dependence of childhood to the independence of adulthood, a period marked by the completion of formal education, entry into the labor force, marriage, and, or starting a family. For the purposes of policy and planning, the Palau Government now defines 'youth' as persons 13-24 years of age.[40]

In 2020, the census enumerated 2,382 youth representing 13% of the population. This is a decline in the youth population of 31.9% since 2005 when there were 3,497 youth representing 17.6% of the population. This is a significant drop and one with critical implications for Palau's future social and economic development.

[39] This section is extracted from Palau Ministry of Human Resources, Culture, Tourism, and Development (MHRCTD). 2023. *Palau National Youth Policy 2023-2027*. Koror: MHRCTD.

[40] An earlier definition was 15-34.

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Issues

In 2023, the Ministry of Human Resources, Culture, Tourism, and Development through the Division of Youth and Career Development completed an updated National Youth Policy encompassing the period 2023-2027. The policy identifies ten priority issues for Palau youth:

- High rates of drug and alcohol use and engagement in risky behaviors, including binge drinking, vaping, and the use of tobacco and betel nuts.
- High rates of youth suicide and many youths experiencing mental health issues and challenges in accessing support.
- High and increasing rates of non-communicable diseases (NCDs) with youth exposed to NCD risk factors, including overweight, obesity, and poor nutrition.
- High adolescent fertility rate and challenges for youth in accessing quality, confidential youth-friendly sexual and reproductive health information, and services.
- While school enrollment rates and educational achievement are satisfactory and improving, there are some issues with repetition and student drop at the Grade 9 level.
- Limited post-secondary education and economic opportunities and minimum wages that are quite low considering the cost of living causing many youths to leave Palau, creating a 'brain drain'.
- Limited pathways for youth with disabilities to access post-secondary education and the labor market, support independent living.
- Exposure to violence, abuse, and exploitation, including new and emerging forms such as online and technology-related violence, bullying, and exploitation; in addition, reporting levels are quite low, particularly in the case of sexual and family violence, and there is limited coordination in referral and service provision.
- Limited community-based rehabilitation opportunities for youth in conflict with the law; and
- Although opportunities and forums exist for youth to meaningfully engage in political decision-making, cultural and social norms requiring deference to community leaders and elders create barriers to the active participation of youth in these forums.

Strategic Objectives

The policy sets out a vision and objectives for youth development, along with strategies to achieve these objectives. The Policy recognizes that issues of concern to youth cut across sector mandates and require a multi-sector approach to implementation. The policy is supported by a detailed National Youth Action Plan, which sets out concrete actions to be taken by each sector and agency, along with a framework for monitoring progress toward policy objectives.

The vision for the National Youth Policy is "a Palau in which all youth are healthy, happy, respected, safe and empowered to contribute to the social, cultural, economic and sustainable growth of the country". The Policy's mission is to ensure that youth are supported and empowered with the knowledge, skills, opportunities, programs, and services to enable them to grow into independence, achieve their full potential, and contribute to happy, healthy, and sustainable communities and families. The policy has five key action areas:

- Health and healthy lifestyles
    - Objectives: All youth enjoy the highest attainable standard of health through access to quality, youth-friendly programs, health information, services and support, and strong supportive families and communities.
- Education, skills, and employment

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    - Objectives: All youth have the necessary education, skills, support, and services to reach their full potential and succeed in the national labor market; quality economic opportunities are available within Palau to enable youth to be self-sufficient, fulfilled, and active members of their communities and contribute to the economic, social, and cultural development of Palau.
- Justice, protection, and social inclusion
    - Objectives: Families and communities support the social inclusion of all youth; youth are safe from all forms of violence, abuse, neglect, and exploitation, through robust processes and comprehensive services to support youth who are at risk or who have experienced violence, and supportive families and communities encourage help-seeking; youth in conflict with the law have access to services and facilities to support their rehabilitation.
- Participation in politics, culture, the arts, and environmental protection
    - Objectives: All youth have the knowledge, skills, forums, opportunities, and support to meaningfully participate in political decision-making and develop and participate in actions and initiatives to address climate change and environmental issues, sports, and cultural and arts programs.
- Strengthening the enabling environment for youth
    - Objectives: Youth and youth development are supported by effective coordination, strong institutions, and evidence-based programs and services.

To oversee the implementation of the policy and the supporting action plan, a Youth Advisory Committee has been created. Chaired by the Minister of MHRCTD, members include youth focal points and representatives from:

- Ministry of Education,
- Ministry of Health and Human Services,
- Ministry of Justice,
- Ministry of State,
- Palau National Olympic Committee,
- Palau Chamber of Commerce,
- State youth representatives,
- Palau National Youth Council,
- Belau Association of NGOs,
- Associated Student of Palau Community College, and
- Palau Red Cross Youth Council.

Social infrastructure

The National Infrastructure and Investment Plan[41] identifies a need for new investment in climate-proofing health facilities with a priority for the relocation of the national hospital and certain low-lying community health centers. Likewise, the Ministry of Education has identified new investments needed to relocate low-lying schools, consolidate inefficient small schools in Babeldaob, and renovate schools in Koror. In addition, there may be a need to adjust or improve existing infrastructure to consider emerging needs related to access by persons with disabilities and senior citizens.

[41] Government of Palau. 2021. National Infrastructure Investment Plan. Ngerulmud

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Improved health facilities were a high priority for 82.7% of the surveyed households in Koror. Assistance with housing was a high priority for 71.7% of the households. Increased welfare support was also important for urban households with 70.1% recording this as a high priority. However, sports and recreational facilities were of lesser priority for Koror State possibly reflecting the existing availability of such facilities.

The primary priority for rural and outer island communities is to increase local populations by increasing housing stock that is accessible, serviced by affordable and functioning utilities and offers enough amenities to create a sense of community and place. The immediate priority to meet the needs of the most vulnerable, while also building a sense of community, is to invest in housing subdivisions on public lands. Investment into subdivision and engineering design, infrastructure (roads, power, water, sewer, storm drainage, waste management, etc.), community amenities (parks, community centers, sidewalks), and safety features (e.g., streetlights) is the most pressing immediate priority for communities outside of Koror.

Plan Directions

- ⇒ Palauans currently living overseas could be attracted to return to work in the country if skilled and higher salaried positions were created through increased private investment and domestic economic activity.
- ⇒ A government statement of labor policy would help clarify future employment needs, associated education and training requirements, the government's position on immigration, support for new labor standards, and labor rights, and better direct the required labor market legislation and regulations.
- ⇒ The high prevalence of NCDs and mental health disorders demands renewed attention.
- ⇒ Disease preparedness and surveillance must also be a priority given the experience of the COVID-19 pandemic and the vulnerability that arises from global transportation.
- ⇒ There is a need to relocate the national hospital and several community health centers in low-lying areas to higher ground to ensure the long-term sustainability of services.
- ⇒ More effort is needed to improve the quality of teaching and learning needed for students to thrive in a rapidly changing highly digitized world.
- ⇒ There is also a need to invest in new education infrastructure to counter the effects of climate change and increase efficiencies in school management.
- ⇒ There will be an increasing need to supplement the cultural system with government initiatives to fill gaps in social protection and fulfill the objective of lifting vulnerable persons above the national basic needs poverty line.
- ⇒ At present, there is no holistic social protection policy nor is there a government office specifically charged with a comprehensive social protection mandate.
- ⇒ There are few social protection programs that specifically target low-income families with children.
- ⇒ Grow the population of rural and outer island communities by actively recruiting and encouraging Palauans to move "home" by streamlining the housing subdivision process, easing the burden of building a home, and increasing the amount and diversity of subdivision lots and affordable homes available.
- ⇒ Strengthen a sense of place by conducting community design and planning and offering support services to create neighborhoods that include increasing access to goods and services, a growing number of childcare options, recreational opportunities, and community educational programming.
- ⇒ Provide housing assistance.

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⇒ Improve waste disposal and affordability of utilities.

Nourish Palauan Culture and Identity

A people's firm understanding of culture and purpose secures the essential platform for all social and economic growth in any country. Palau's culture fashions social, environmental, economic, and governance growth and development. As with all countries, culture preservation, protection, and promotion are of prime concern to the development of Palau. The book "Just One House" narrates the successful history of competition and cooperation in Palauan society.[42] The long-held, firm sense of belonging, an organized society, and associated traditional institutional arrangements and expectations help explain the country's comparative social and economic progress.

As with all countries, cultural protection can impact the development of labor, capital, and land markets. The Palau National Master Plan 1994-2020 discusses the threat to culture and environment from economic growth. A suitable balance of differing development objectives is to be determined due to their equal importance to the future of Palau. This requires a sustained commitment to the coordination of development policy. It has long been government policy in Palau to seek to control immigration, to place direct controls on foreign investment, and to implement programs to encourage the return of Palauans living, working, and studying overseas. Some in the community have also expressed concern over the loss of land to foreigners under long-term leases.

Palau's growth and development towards modernization over the years have threatened Palau's cultural preservation and protection efforts. The article "Cultural Mapping-Republic of Palau" identifies several challenges, including the deterioration of the value and role of the Palauan language, the reinforcement of cultural learning and preservation, and the threat of Palauan knowledge, values, and principles because of foreign influences.[43]

There was no decrease in the number of Palauans (those with legal residence in Palau) speaking their own language between the censuses of 2015 and 2020. However, there has been an increase in the number of Palauans recorded as using another language, from 7,099 people in 2015 to 8,970 in 2020, with speakers of English more than doubling from 4,146 in 2015 to 8,893 English speakers in 2020. This may indicate an erosion of the importance of the Palauan language. The Palauan Studies 2-year degree program introduced over five years ago at the Palau Community College demonstrates Palau's efforts to ensure cultural sustainability; however, it has failed to attract interest, unlike Western topics and teachings.

Contrary to any perceived protectionism, Palau has succeeded in importing labor in what is a relatively large number for the country over many years. Foreign investment in construction and tourism and previously in fisheries has also been significant for the country's growth. The competitive and cooperative nature of Palau culture has adapted and continues to adapt to the needs of more modern society and the economy. However, more attention needs to be paid to nourishing Palauan culture.

[42] Roland W. Force, Maryanne Force. 1972. *Just One House: A Description and Analysis of Kinship in the Palau Islands.* Volumes 235-236. Bishop Museum Press.
[43] Kloulechad-Singeo, Ann, 2011. Cultural Mapping-Republic of Palau

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Rural and Outer Island Communities

Maintenance, enhancement, and perpetuation of cultural practices is an immediate priority for rural and outer island communities and is a foundational core value, both for its intrinsic value but also because communities recognize that a strong sense of place and a strong cultural affinity is essential to attracting Palauans to move back home. Development that detracts from cultural values is not desired in rural communities, although balancing the benefits of modern economic growth with the perpetuation of millennia-old traditions remains a challenge.

The capture and transference of cultural knowledge from the elderly to youth, or from one generation to another, is an immediate priority and could be achieved with minimal investment (see Table 8). Investment in regular community cultural programming, with support services to document, communicate, and enable traditional practices is an immediate priority.

Every rural and outer island community has important cultural sites, many of which have fallen into disrepair, or which need ongoing maintenance. Given competing needs, time dedicated to cultural site restoration and maintenance is at a premium. Relatively low investment in cultural site restoration programs and ongoing investment into site maintenance needs to be addressed and are immediate priorities. Aligning cultural site programming with tourism marketing is also desired and could build sustainability for maintenance.

Every village in Palau once had a central location for practicing traditions. Many communities lack this type of central location, be it a Community Center, Senior Center, or Cultural Center, or their existing centers are in disrepair or are not accessible to elderly populations or handicapped persons. Safe and secure facilities that enable the practice of cultural traditions, and which doubly serve as education centers for the perpetuation of culture, are an immediate priority for communities.

Improved governance capacities are also a priority to ensure that economic growth and other forms of development respect Palauan culture, including land use planning, zoning, and mitigation, and policies that limit the impacts of foreign labor on uniquely Palauan communities. Investment in fair and equitable legal and policy development that encourages Palauan-led growth (such as mandates for citizen-led tourism or leasing) is a medium-term priority.

Urban Communities

Increasing the protection and utilization of cultural sites and practices is a top priority for stakeholders in Koror both to retain culture but also to diversify the economic base. Priority sites include the preservation of existing taro patches in Koror (including in the Rock Islands) and cultural and historical sites in the Rock Islands. A priority for Koror and Airai is to diversify tourism to include cultural tourism, and in Koror, another priority includes better management of, and capitalization of opportunities associated with the World Heritage Site, which was nominated to the UNESCO convention based on both natural and cultural criteria. Supporting traditional practices in fisheries and gleaning is a cultural priority in urban areas. Culture projects under the PDP are presented in Table 9.

Table 8: Culture PDP Projects (US$)

	FY24	FY25	FY26	FY27

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Cultural Centers (15 rural states plus operations)	3,000,000	150,000	150,000	150,000
Cultural Programming (16 states)	160,000	160,000	160,000	160,000
Cultural Site Restoration (15 rural states)	260,000	260,000	260,000	260,000
Cultural Site utilization in the UNESCO World Heritage Site (Koror)	150,000	150,000	150,000	150,000
Total:	**3,570,000**	**720,000**	**720,000**	**720,000**

Plan Directions

⇒ Design and support delivery of cultural education programs and curricula that emphasize local knowledge, language, traditions, stories, and heritage for young and old.
⇒ Restore and maintain cultural sites to meet local educational and cultural needs while adding value as tourism products.
⇒ Build or repair a network of cultural centers.
⇒ Improve management of cultural sites in the UNESCO World Heritage site.

Maintain the Environment and Counter Climate Change[44]

The 2019 State of the Environment Report presents a mixed report on the state of the country's marine, terrestrial, protected areas, and human/ urban indicators.[45] Particular areas of concern are:

- Climate change and sea-level rise
- Impacts of extreme weather and tidal events, particularly tropical cyclones, storm waves, and droughts
- Fires and soil erosion
- Unsustainable use of marine resources
- Invasive plants and animals
- Urban expansion and land clearing
- Poor waste management practices and water pollution
- Gaps in governance, legislation, and resourcing
- Unexploded remnants of war (UXOs)

Palau has an active and diverse environmental community, with multiple overlapping priorities and actions. A desire to better coordinate and prioritize across sectors triggered the development of the 2022 – 2030 Palau National Environmental Management Strategy (NEMS)[46]. The NEMS portrays Palau's priorities and actions to conserve and improve its environment for current and future generations to enable and improve ongoing cross-sector coordination. It mainstreams national policies that promote sustainable development through integrated environmental actions, conservation, and governance. It also collates actions from sector policies

[44] Also see the Environment Sector Strategy.
[45] National Environmental Protection Council. 2019. 2019 State of the Environment Report Republic of Palau. Ngerulmud.
[46] Secretariat of the Pacific Regional Environment Programme (SPREP). 2022. 2022-2030 Palau National Environmental Management Strategy. National Environmental Protection Council (NEPC): Ngerulmud, Palau. 52pp.

and plans into one place and thus serves as a central course for environmental priorities. Palau is highly reliant on its natural resources and environment, and environmental management is closely linked to sustainable development and cultural and natural history. Thus, priorities in the NEMS promote a balance of sustainable development and environmental conservation.

The country has an annual dry season from January to March, which reduces the quality and quantity of potable water available to local communities (SDG target 6.1). Environmental vulnerability in Palau is high due to diverse but limited natural resources and fragile ecosystems that must withstand the pressures of increasing consumption, the usually bustling tourism industry, and limited planned development. In the 2020 INFORM Global Risk Index, Palau had an overall risk of 2.5/10, which INFORM categorizes in the low-risk class. Palau's risk score for Hazard and Exposure was 1.7/10, 2.1/10 for Vulnerability, and 4.2/10 for Lack of Coping Capacity.[47]

Climate Change

Palau, like many other Pacific countries, is highly vulnerable to the impacts of climate change, principally from sea level rise and an increased frequency of extreme weather events (particularly flooding, and Category 4 and 5 typhoons). Communities and researchers have confirmed impacts and risks such as rising sea levels and increased incidences of extreme weather. Direct impacts from climate change are expected to also include changes in seasonal rainfall, temperature regime changes, increasing sea surface temperature, and increasing ocean acidification.[48] The need for future climate resilience will impact both the existing stock and future investments in infrastructure.

Sea-level rise threatens vital infrastructure, settlements, and facilities that support the livelihoods of island communities. Ocean warming and acidification will heavily impact coral reefs, fisheries, and other marine-based resources crucial to local livelihoods, the economy, and culture. Climate change impacts are also predicted to exacerbate the existing adverse impacts on national forestry and agriculture that arise from soil erosion, saltwater intrusion, flooding, diseases, and pests. Land and coral reefs on Palau's exposed east coasts and northern peninsula and islands have seen the most severe impacts from typhoons. Seagrass beds on the west coast are also facing the cumulative impacts of extreme weather-driven erosion. Since 1945 Palau has had 68 recorded typhoons, tropical storms, or tropical depressions within 200 nautical miles of its islands or reefs. At their nearest point to Palau, 20 of these were typhoon strength, an average of 1 typhoon every 3 years.[49]

National climate change responses are focused on adaptation, mitigation, and disaster risk management. Priority Climate change strategies for natural environments and human settlements and infrastructure are included directly and indirectly across several other PDP sector plans including Energy, Housing, Water and Sanitation, Transportation, Environment, Agriculture, and Fisheries sector plans. Ongoing adaptation and planning for climate change are national and sub-national priorities and include strategic planning and adaptation measures, improved access to climate-related financial assistance, and transition to renewable energy sources. The States

[47] Harvard University. 2020. *Inform GRI 2020: Index for Risk Management.* Cambridge, MA

[48] Palau National Weather Service Office, Australian Bureau of Meteorology, Commonwealth Scientific and Industrial Research Organisation. 2015. *Pacific-Australia Climate Change Science and Adaptation Planning Program*. East-West Center. Report for the Pacific Islands Regional Climate Assessment. 2020. *Climate Change in Palau*. Honolulu.

[49] Coral Reef Research Foundation. 2014. *A Summary of Palau's Typhoon History 1945-2013*. Koror

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need assistance in developing land use master plans that allow for climate change and social and economic development.[50]

The government is aware of the risks to economic growth and the costs of ex-post responses to natural disasters and climate change. It has therefore been building fiscal buffers and securing contingent financial assistance from the Asian Development Bank (ADB) to help finance the required future adjustments.[51]

Land Management and Food Security

Palau has committed to tripling agricultural productivity and consumption by 2030[52]. This will require careful conversion of lands to become agricultural lands. Given the proximity of land and land development to valuable coastal wetlands and nearshore productive marine seascapes, management of resources on land (soil and vegetation) must be done in an integrated fashion. Thus, land management in Palau is considered in two categories: 1) Protected areas and 2) Sustainable Land Management (SLM) for all other lands. Practices on land can lead to losses of biodiversity and ecosystem services through coastal deforestation and beach erosion, grassland fires, urban and village expansion, and land clearance and reclamation. Terrestrial ecosystems and food production habitats can be better preserved through coordinated land use planning, agro-biodiverse food production, water supply protection, and management and protection of terrestrial habitats and resources. Aspects of land management related to agriculture are included in the agriculture sector plan, and other aspects are in the Housing, Environment, or Governance sector plans.

Nearshore Marine Management

Palau's world-famous marine environments are highly diverse and are the foundation of the nation's tourism industry, which is based on diving and marine recreation. Nearshore waters, which include seagrass, mangroves, coral reefs, and lagoon habitats, also provide habitat for important commercial and traditional fisheries (vertebrate and invertebrate). Palau has committed publicly to at least tripling aquaculture productivity by 2030, which will require careful conversion of nearshore marine areas to productive aquaculture sites. Land activities such as clearing, construction, and fire have repeatedly led to erosion and sedimentation in some nearshore marine areas, leading to the loss of coral reefs and fishery production. Impacts due to climate change, such as stronger typhoons, sea surface warming (leading to coral bleaching), and acidification further threaten valuable marine resources. Overfishing of certain fish and invertebrate species has also led to population declines. There is significant demand for the expansion of aquaculture to supplement wild foods, for economic gain, or to reseed wild habitats. Research, monitoring, and spatial planning, sustainable management of coastal fisheries, growth of aquaculture, expansion of protected areas, more sustainable tourism, and management of diverse habitats will

[50] The development or update of most States' master plans is ongoing through the GEF 6 project, led by the Ministry of Agriculture, Fisheries, and the Environment.

[51] ADB. 2021. *Report and Recommendation of the President to the Board of Directors. Proposed Programmatic Approach and Policy-Based Loan for Subprogram 1 Republic of Palau: Recovery through Improved Systems and Expenditure Support Program*, and ADB. 2022. *Report and Recommendation of the President to the Board of Directors. Proposed Policy-Based Loan for Subprogram 2 Republic of Palau: Recovery through Improved Systems and Expenditure Support Program.* Manila

[52] Palau commitment to the Our Ocean Conference 2021, which included tripling of local agriculture, aquaculture, and pelagic fish production and consumption: https://action.oceanpanel.org/initiative/palau/our-food-is-our-responsibility-keled-a-ngercheled/

help to preserve Palau's marine environments. Aspects of nearshore marine management are included in the Fisheries and Aquaculture sector plan and in the Environment sector plan.

Offshore Marine Management

The offshore marine environment extends from deep coral reefs to Palau's 200-nautical-mile border, encompassing the entire EEZ. The entire EEZ is regulated under the Palau National Marine Sanctuary (PNMS) Act, which established a Domestic Fishing Zone, a closed Marine Protected Area, and an Artisanal Fishing Zone; the act also reconfirmed each State Government's territorial rights from shoreline to 12 nautical miles. Regulation of the EEZ via the PNMS is designed to support the sustainable use and protection of multiple natural, social, and cultural resources. Palau has committed to at least tripling local production and consumption of pelagic fish by 2030. Support for sustainable domestic pelagic fishing, improved security and enforcement, and expansion of benefit-sharing will protect offshore marine resources. Food security plans for the offshore marine environment are captured in the Fisheries and Aquaculture sector plan, and other needs are captured in the Transportation and Public Safety sector plans.

Freshwater Management

Freshwater is generally abundant throughout Palau through a network of surface streams, which provide public water for the majority of Palau's population. However, several of Palau's smaller and outer island communities rely on shallow aquifers or rainwater as their public water source. Freshwaters are also rare and critical habitats in Palau. Freshwater is an abundant but critical aspect of Palau's environment. However, beyond a required 60-foot buffer as mandated by environmental regulations, very few watersheds above public water sources are sustainably zoned or protected, and development in many of these watersheds introduces sediment and coliform bacteria into drinking water. Catchment management and protection, freshwater monitoring and supply management, and freshwater lake and estuarine habitat protection will help to preserve Palau's freshwater environment. Freshwater management related to public water is included in the Water and Sanitation sector plan, and freshwater, as related to biodiversity conservation, is included in the Environment sector plan.

Biodiversity Conservation

Palau's geographical and geological characteristics have allowed for the development of unique and endemic biodiversity with over 7,000 terrestrial and 10,000 marine species known to exist in the country. Highly biodiverse environments such as forests and mangroves have proven to be more resilient to climate change and thus provide critical ecosystem functions such as storm and fire protection and water provisioning. However, due to small size and isolation combined with overuse, poor practices, invasive species, and climate change, several of Palau's species are threatened or endangered and habitats on land and water are regularly converted to more urban uses. To preserve highly biodiverse areas or to maintain ecosystem functionality, Palau's communities have established more than 60 small, protected areas. The National Government supports many of these protected areas via a Protected Areas Network (PAN), which has won global innovation awards, and which is a key pipeline to ensure that tourism contributes to environmental protection (via the Pristine Palau Environment Fee/Green Fee and PAN funding). Palau's biodiversity will be better conserved by endangered species regulation, control of invasive alien species, an increasingly effective Protected Areas Network (PAN), and sustainable tourism practices. Aspects of biodiversity conservation are included in the Environment sector plan.

Waste and Chemical Management

Impacts from the management of solid waste and chemicals are significant environmental issues facing Palau. Solid waste degrades all types of habitats and waters, and poor life cycle management of chemicals has threatened public water sources and air quality. A new landfill opened in 2020 is filling faster than expected, and many need to close prior to its anticipated 25-year lifetime. Every community in Palau has a small dump that leaches hazardous materials directly into the environment; although many on Babeldaob are slated for closure none have been properly rehabilitated. On outer islands, dumps are thought to leach into aquifers, although a lack of solid information plagues the sector. Solid organic waste also contributes negatively to Palau's Greenhouse Gas emissions, despite a high demand for composted organic matter as amendment for poor soils. Management of marine debris originating outside of Palau is increasingly needed, but solutions beyond adding to landfills are minimal, although Palau has successful proof of concept of waste-to-energy-recovery facilities. Improved waste management services, waste reduction, recycling, and landfill operation improved hazardous waste and oil spill management, contaminated site management, and lifecycle chemical tracking, monitoring, and reporting will help reduce pollution of lagoon waters and prevent disease and other public health issues. Waste and Chemical management needs are included in the Solid Waste, Water and Sanitation, and Agriculture sector plans.

Built Environment

With the majority of Palau's environment living in urban areas, and with ambitious plans to encourage growth in new housing and commercial developments in undeveloped and rural areas, urban and built environments play a critical role in daily life. Sustainable Land Management principles are key, including land use planning and building codes, to minimize the impacts of pollution and habitat loss. Much of Palau's existing infrastructure (including its single hospital) and most built environments are vulnerable to climate-change-exacerbated storm surges, sea level rise, landslides, and fires. The main source of watershed pollution is sedimentation caused by land-use practices further exacerbated by climate change. Poor urban growth has also led to the expansion of invasive species causing damage to crop and human health. Improved access to safe water supplies, improved sanitation programs and sustainable, climate-proof construction will help protect community health and the environment. Built Environment needs are captured in Housing and Water and Sanitation sector plans.

Culture, Heritage, and Awareness

Palauan culture is closely linked with the environment, with biodiversity playing an important role in all facets of traditional and modern Palauan life and is important in creating a strong sense of identity and sense of place. However, rapid urbanization threatens cultural knowledge and important sites. Environmental education programs that connect habitats and biodiversity to cultural identity and history have been utilized successfully to raise awareness of environmental issues and to build the next generation of environmental stewards. Documentation of traditional knowledge, better protection of cultural heritage, raising public awareness of issues facing natural and cultural heritage, and community and professional education and training programs will help perpetuate Palau's close links between cultural and environmental sustainability. Cultural needs are included in the Housing and Environment sector plans.

Environmental Governance

Every sector of society has a role in environmental governance, from community and civil society to Traditional Leaders to State and National Government. The scale of governance goes

from hyperlocal to international, and Palau is active in numerous regional and international conventions and agreements. Cross-sector planning and updated policy development is increasingly promoted but needs ongoing support. Many of Palau's environmental activities are grant supported and funded by donors, thus maintaining capacity to access funds and successful implement and track projects is a key need at every level. Capacity building and extension services, updating of environmental laws, regulations, and policies, and improved awareness and enforcement will improve environmental governance. Environmental governance needs are included in the Environment sector plan.

Environment and Urban and Rural Communities

A cleaner urban environment was a high priority for 67.5% of surveyed households in Koror and addressing the impacts of climate change on vulnerable communities was a high priority for 58.7% of surveyed households. Preserving cultural practices and managing fisheries (vertebrate and invertebrate) were also top priorities for building long-term resilience in the urban community. For Koror State, maintaining the pristine nature of the Rock Islands Southern Lagoon (RISL), its UNESCO World Heritage Site, is a priority for both economic/tourism and food production reasons.

Natural resources and the environment underpin social and economic security for all of Palau's communities. Maintaining productive landscapes and seascapes and ensuring perpetual biodiversity and pristine environmental conditions to fuel tourism growth is therefore essential. Communities have already invested heavily in protected areas on land and in nearshore areas, and the nation's global biodiversity and protected area commitments are met exclusively through State and community action. Implementation of land use plans and zoning, via mandated Planning Commissions and State Planning Offices, is an immediate priority. The maintenance and growth of protected areas, including the expansion of roles of PAN Rangers to encourage compliance with multiple environmental and cultural laws, is a medium-term priority.

Although climate change impacts many sectors, it is particularly linked to land use, both in terms of where land can be used and exacerbating many of the negative impacts of land use change. Many of Palau's communities live in low-lying areas, and thus controlled migration to upland housing subdivisions is an immediate priority. To reduce the impacts of development under future climate change scenarios, engineering designs that minimize risks of subdivisions and other developments are needed, but State governments and communities have limited access to technical expertise. Increasing access to technical planning and analytical expertise is an immediate priority.

Many roads, water system features, and public facilities are in low-lying or coastal areas that are experiencing sea level rise or storm surges. Elevation, reconstruction, or rehabilitation of these at-risk investments is a medium- to long-term priority. Outer islands are particularly at risk of climate change and thus in outer islands, improving key infrastructure such as water systems, transportation, safety systems, and communications is an immediate priority. Reducing disaster risk through the installation of solar systems and the development of building codes is a long-term priority.

State Governments are the first line of support in disasters for Palau's most vulnerable and provide immediate evacuation and support services. Reducing vulnerabilities is a primary concern for communities by limiting exposure to risks. Providing alternative sites for homes is an immediate priority. Many cultural sites and particularly taro patches, which are essential for food and cultural security, are also low-lying and thus communities are at risk. Communities have

prioritized several short- and medium-term actions to reduce vulnerabilities, such as upland agriculture, diversification of food production, diversification of employment opportunities, and climate-proofing infrastructure. For outer islands, having access to reliable, affordable, and safe transportation is also essential.

Plan Directions

⇒ Ongoing adaptation and planning for climate change include strategic planning and adaptation measures, improved access to climate-related financial assistance, mitigation through a transition to renewable energy sources, energy efficiency, and waste reduction, disaster risk reduction and preparedness, and identification and servicing of vulnerable peoples.

⇒ Improve future climate resilience in the existing stock and future investments in infrastructure.

⇒ Support for tripling of diverse agriculture production in an environmentally and culturally sustainable manner.

⇒ The States need additional assistance in developing master plans and sustainable land use plans that allow for climate change and social and economic development.

⇒ Terrestrial ecosystems and food production habitats can be better preserved through coordinated land use planning, agro-biodiverse food production, water quality and supply protection, control of key invasive alien species, and management and protection of terrestrial habitats and resources.

⇒ Research, monitoring, and spatial planning, sustainable management of coastal fisheries, growth of aquaculture, expansion of protected areas, more sustainable tourism, and management of diverse habitats will help to preserve and sustainably use marine environments.

⇒ Support for increased sustainable domestic pelagic fishing, improved security and enforcement, and expansion of benefit-sharing will protect offshore marine resources.

⇒ Freshwater catchment management and protection, freshwater monitoring and supply management, freshwater lake and estuarine habitat protection, and management of the cumulative impacts of sewage and septic tanks will help preserve the freshwater environment.

⇒ Biodiversity will be better conserved by endangered species regulation, control of invasive alien species, an increasingly effective PAN, and sustainable tourism practices.

⇒ Improved waste management services, segregation, composting, and recycling, landfill operations for improved hazardous waste and oil spill management, contaminated site management, rehabilitation of closed dumps, and chemical tracking, monitoring, and reporting will help reduce pollution of lagoon waters and prevent disease and other public health issues.

⇒ Improved access to safe water supplies, improved sanitation programs and sustainable, climate-proof construction will help protect community health and the environment.

⇒ Utilization of traditional knowledge, better protection of cultural heritage, raising public awareness of issues facing natural and cultural heritage, and community and professional education and training programs will help perpetuate Palau's close links between cultural and environmental sustainability.

⇒ Conservation and management of Palau's environment can be supported through sustainable financing, updated environmental policies, strategies, and regulations, improved environmental compliance and enforcement, and increased public participation in environmental management.

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Restore and Sustain Economic Growth

The global economic outlook remains highly uncertain. While the outlook for the economy of China looks favorable post-COVID-19 lockdowns, and the impact on fuel and primary commodity prices induced by the Ukraine war has abated, the persisting high inflation and monetary policies currently pursued by world financial institutions make the outlook uncertain. The recent collapse of several US and European banks increases the risks of recession and a hard landing. Palau embarks upon a new development plan at a very difficult time. The country will nevertheless continue to benefit from international development assistance and existing environmental, cultural, governance, and social strengths. The government has already committed to a wide-ranging program of economic and structural reform, and this will help secure government finances and strengthen the economy. These reforms will however need to continue and be deepened.

Palau's history of economic growth has been modest and volatile (Table 9). As the 2021 IMF Article IV reported Palau entered the COVID-19 pandemic on a relatively strong fiscal footing. A history of fiscal prudence led to sustained fiscal surpluses and the accumulation of government deposits. By the end of FY2019, central government deposits had reached 11 percent of the Gross Domestic Product (GDP) and public debt was moderate at about 39 percent of GDP.[53] However, a steady decline in tourist arrivals from FY2016 had dampened growth and worsened the external balance. In FY2019, real GDP contracted by 1.9 percent, and the current account deficit doubled to 31 percent of GDP.

The pandemic severely impacted the economy. While the first cases of COVID-19 infections in Palau were only recorded in mid-August 2021, the government, of necessity, adopted and maintained strict and preemptive measures from the beginning of the pandemic. The suspension of commercial flights curtailed tourist arrivals and put a severe strain on the economy. According to the 2022 GSUSA EconMap, despite policy support real GDP contracted by 9.3 percent in FY2020 and by a further -14.4% in FY 2021.[54] The construction sector was however resilient, reflecting progress on large infrastructure projects such as the airport extension and robust housing construction. Today the economic outlook is bleak until there is a full recovery of the tourism industry.

Table 9: Growth Indicators

Indicators	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
GDP current prices, $ million	188.2	198.9	215.6	224	245.6	287.9	303.7	288.4	286.9	281.5	256.6	223.1
Population	18,116	17,777	17,445	17,517	17,589	17,661	17,653	17,645	17,637	17,630	17,622	17,614
GDP per capita $	10,388	11,186	12,360	12,790	13,966	16,299	17,202	16,345	16,265	15,966	14,564	12,669
GNI per capita $	10,262	11,012	11,895	12,483	13,431	15,578	16,300	15,998	15,838	15,855	14,857	13,305
GNDI per capita $	12,214	12,992	13,929	14,543	15,612	17,477	18,113	17,667	18,440	17,293	16,851	15,046
GDP, at constant FY2019 prices, $ million (ave.GDP(P) and GDP(E))	237.2	249	251.9	244.2	257.2	283.9	284.4	272	274.9	278.1	252.1	215.8
GDP, % growth	-1.6%	5.0%	1.2%	-3.1%	5.3%	10.4%	0.2%	-4.4%	1.1%	1.2%	-9.3%	-14.4%

Source: Graduate School USA, EconMAP

Drivers of Growth

[53] IMF. 2021. *2021 Article IV Consultation*. Washington D.C.
[54] GSUSA EconMap. 2022. *2022 Economic Brief*. Republic of Palau.

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Prior to COVID-19 travel restrictions, tourism was the lead sector driving economic growth in the country with consistent growth in visitor numbers from FY2010 to FY2015 (Table 10). However, most of this increase benefited middle-to lower-grade establishments with an associated large increase in package-tour visitors predominantly from China. This resulted in limited domestic value-added and a reported negative impact on the natural environment. Annual visitor arrivals fell from 168,424 in FY2015 to 89,379 pre-GOVID-19 in FY2019. This can be compared with the Commonwealth of the Northern Marianas Islands (CNMI) which attracted from 480,000 to just over 650,000 annual visitors in the 4 years prior to COVID-19 and Guam which attracted over 1.5 million visitors each year.[55] The fall-off in tourist arrivals in Palau was largely due to a contraction in Chinese visitors. However, there were also significant reductions in the more traditional, higher-spending tourists.

While Palau's public sector was reinforced by international assistance during the pandemic, the private sector bore most of the impact. The GSUSA EconMap (footnote 54) estimates the loss in private sector output to be -41% during the FY2019 to FY2022 period.

Table 10: Growth Drivers

Indicators	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Total visitors to Palau	80,897	103,700	118,715	110,611	125,425	168,424	146,268	121,670	115,564	89,379	41,628	3,400
Direct contribution to GDP (%)												
Tourism	17.2	20	22.4	23.9	24.6	25.8	23.6	21.0	19.0	16.6	7.9	0.3
Agriculture and forestry	1.9	1.9	1.7	1.8	1.7	1.4	1.4	1.5	1.6	1.6	1.7	1.8
Fishing	2.2	2.1	2.1	2.2	1.9	1.6	1.6	1.9	1.8	1.8	1.7	1.8
Manufacturing	0.8	0.9	1.0	1.0	1.0	0.9	0.9	1.0	1.0	1.0	1.0	1.1
Construction	5.2	5.5	4.7	3.5	3.8	4.8	4.7	4.0	6.9	6.9	6.9	8.0

Source: Graduate School USA, EconMAP

Although the country has underutilized land and an abundance of marine resources, agriculture, and fisheries have contributed little to economic growth (Table 10). Only 4.49% of the National Development Bank's loan portfolio consisted of loans to agriculture in 2021 and 2.56% to fisheries.[56] Poor soils, pests, and a lack of Palauan interest in farming are some of the factors that constrain investment in agriculture. The creation of a domestic commercial fishery is also challenging.[57] Out-grower and contracting schemes may hold some potential for commercial agriculture development and scaling up the current small day-boat fleet offers some potential for commercial fisheries development (footnote 53). New agriculture and fisheries commercial investment and development policies are needed to support more diverse growth and development.

Fiscal position

The fiscal position is summarized in Table 11. From FY2005 to FY2018 Palau maintained a prudent fiscal policy with surpluses accruing during the tourism boom years despite the concerns over a lack of domestic value-added. However, the pre-pandemic economic downturn in FY2019 and pandemic support measures led to large fiscal deficits. GSUSA EconMap

[55] CNMI. Department of Commerce. *CNMI Central Statistics Division* Report Hub. Saipan. https://ver1.cnmicommerce.com/divisions/central-statistics/report-hub/ Government of Guam. 2020. *Guam Statistical Yearbook*. Hagatna: https://bsp.guam.gov/guam-statistical-yearbook-2/

[56] National Development Bank of Palau. 2021. Financial Statement. Koror

[57] Palau International Coral Reef Center and the Stanford Center for Ocean Solutions, "Palau's National Marine Sanctuary: Managing Ocean Change and Supporting Food Security," PICRC, December 2019. Available at: *http://picrc.org/picrcpage/palau-national- marine-sanctuary* and *https://oceansolutions.stanford.edu/pnms-report.*

estimates a further deficit of -$23 million or -11% of GDP for FY2022 and -$18 million or -7% of GDP in FY2023 (footnote 54). Trust fund incomes performed satisfactorily and matched the industry benchmark for a passive investment strategy and the portfolio adopted.

Table 11: Fiscal Position

Indicators	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Overall Fiscal Balance	-2.3	2.5	2.1	1.2	8.8	14.4	10.7	13.8	17.8	-1.0	-24.6	-36.7
External Debt (% of total GDP)"	35.3	31.5	32.0	29.0	28.7	22.4	24.7	28.1	30.5	31.0	54.0	74.9

Source: Graduate School USA, EconMAP

The requirement for external borrowing is projected to rise rapidly in the short term because of the pandemic and the ratio of external debt to GDP is expected to increase to 92% by the end of FY2022 (footnote 54). The Government of Koror State has also requested a loan of $15 million to support the state through an extended downturn due to COVID-19. GSUSA EconMap reports that while the level of debt will be large by historical standards, it should not result in a high risk of debt stress in the long term given fixed low-interest rates on many loans and the concessional nature of the debt. However, debt service will double in the near term with the increase in COVID-19-related debt and the significant increase in interest rates.

In addition to championing future private sector drivers of growth, the economic growth strategy will be complemented by the recovery and expansion of government revenues through continued fiscal discipline, more efficient revenue collection, and SOE, social security, and pension reforms to reduce if not eliminate demands for government subsidies and transfers to public sector financial institutions. The IMF has estimated that eliminating subsidies to the Palau Public Utilities Corporation (PPUC) over the next 5 years would yield a cumulative saving of 1 percent of GDP.[58] The greatest fiscal risks facing the nation are failing to adopt a staged introduction of full cost recovery tariffs in water and wastewater and collapse in either the Social Security or Civil Service Pension Plan, which on current trends are projected to collapse within the next 10 years.

The government continues to implement fiscal reforms including the adoption of a Fiscal Responsibility Framework in 2018, a business profits tax in 2022, the introduction of a goods and services tax in January 2023 (a value-added tax), reforms to the wages and hotel occupancy taxes, and reforms to revenue administration. The financial imbalances of the State Governments and public pensions remain to be corrected. As previously mentioned, the government also needs to generate increased revenues to fund priority fiscal buffers for natural disasters and climate change, to further establish a “true” or “perpetual” trust fund, and to restructure the economy.[59]

Community Economic Priorities

All communities desire economic growth for their people, through the creation of jobs and by accessing higher pay and job stability. For most of Palau’s States, excluding Koror and Airai, economic development is a medium- to long-term priority because the conditions needed to fuel economic development – namely larger populations – must come first. Thus, the expansion of housing stock and improvement of amenities is the most immediate priority for rural states.

[58] IMF. 2019. *Republic of Palau: 2018 Article IV Consultation—Press Release; Staff Report; and Statement by the Executive Director for the Republic of Palau*. IMF Country Report No. 19/43. Washington, DC.

[59] See RPPL 11-13, The Fiscal Responsibility Act. Further information on public finance management is provided under the Governance section below.

That said, States have priority areas for economic development. An immediate priority is to enable the implementation of State Master Plans, which include economic development objectives, climate resiliency objectives, and collective benefit principles, through the creation of new positions for State Planners[60] which can coordinate, implement, and track master plans. Achieving participatory input and buy-in from a supported and funded State Planning Commission is another immediate priority.

State Governments will remain the primary employers in rural communities in the short term. However, communities would like to develop training programs and pipelines that would create more efficient State Governments and would move trained state personnel into private enterprise. This is a long-term priority. In the short-term, however, State Governments and NGO partners can support the development of private enterprise through a suite of actions, ranging from the creation of markets (physical and literal), more secure land and aquaculture leases, construction of food processing centers, and facilitation of support services such as business planning and loan application help for the most vulnerable community members. Expanding the state's capacity to offer these support services to small entrepreneurs, especially those in food production, is an immediate priority.

Expanding the number, diversity, and quality of cultural and natural tourism products, equitably marketing tourism products in all communities, and increasing the number of local Palauans able to participate in and benefit from the tourism industry is an immediate priority. Increasing the stock of small tourism accommodations, restaurants, and support services is a medium- to long-term priority in rural communities. While many communities welcome limited foreign investment, maintaining a uniquely Palauan identity is of utmost concern and thus developing investment, employment, and other policies to limit the impacts of foreign influences remain a medium- to long-term priority in rural communities.

Due to Airai's proximity to the airport, providing an alternative destination for tourists is an immediate priority, and expanding tourism products, accommodations of all types, restaurants, and support services are immediate priorities. In Airai, the attraction of large and small businesses to existing and new industrial, business, and marine hubs by providing land, water access, and infrastructure and through active promotion and negotiation is a medium- to long-term priority. Areas in Aimeliik closer to Koror have been designated for more intensive tourism use. Obtaining foreign investment is another immediate priority for Airai and Aimeliik.

Plan Directions

⇒ The economic outlook will remain bleak until there is a full recovery of the tourism industry.
⇒ New agriculture and fisheries commercial investment and development policies are needed to support diversified growth and development.
⇒ In addition to championing future private sector drivers of growth, the economic growth strategy will be complemented by the recovery and expansion of government revenues through continued prudent fiscal policy, more efficient revenue collection, and SOE, social security, and pension reforms to reduce if not eliminate demands for government subsidies.
⇒ State Governments' and public pensions' financial imbalances need to be corrected.

[60] Also called State Master Plan Coordinators or Economic Development Coordinator. The term "State Planners" is used here to align with PNCA 31. The term "State Planner" does not mean that the position is for a trained urban planner, but instead is for a coordination office and position.

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⇒ The government also needs to generate increased revenues to fund priority fiscal buffers for natural disasters and climate change, to further capitalize the trust fund, and restructure the economy.
⇒ The capacity of State Governments and partners should be strengthened to provide small business and entrepreneurial support, particularly in the food production sectors.
⇒ Food security needs to be increased by expanding agriculture and aquaculture production by families, communities, and businesses. Diversification of food production, and expansion of the number and types of markets available should also be supported.
⇒ The number, diversity, and quality of cultural and natural tourism products should be expanded and promoted, and an increasing number of Palauans need to be trained in local tourism, including tourism business management, arts and handicrafts, and customer relations.

Governance for Growth[61]

The world's history of economic growth and development argues that strong institutional relationships and governance, and better policies underpin sustained economic growth and development.[62] The government, private sector including foreign direct investment, NGOs, and the community are all partners in the country's development. In addition to accessing sufficient land, labor, and capital, the mix of stakeholders, contributor partnerships, and their respective roles and responsibilities should preferably be tailored to the country's growth and development. The stronger the country's organization, institutional understandings, and governance, and the more development policies are supportive then the more social, cultural, environmental, and economic growth and development are likely to be strong and sustained. All public services and all sector performance driven by state and national governments depend on good governance and the professional and robust functioning of core government public service management, public finance management, and policy formulation.

Partnerships

According to the 2020 National Master Development Plan (NMDP), reaching and maintaining agreements in Palauan society is time-consuming and requires respect and patience.[63] The NMDP goes on to state that: (i) the dominance of individual and minority interests over institutional practices has enabled personal, clan, and State jealousy and rivalry to continue, (ii) the focus on redistribution distorts incentive structures, and (iii) there is a fragmentation of authority and leadership. Investments in development, new policies, and social, cultural, environmental, and economic reforms necessitate extensive consultation and participation in decision-making. Participatory decision-making has helped the adoption of the current State Master Plans, and recent tax, SOE, and other reforms. Stronger, participatory state and national

[61] As defined by ADB, governance is about how governments - in close collaboration with the private sector and civil society – exercise their authority to manage economic and social resources in support of improved development outcomes. Key attributes of good governance are transparency, accountability, participation, and predictability.
[62] D. Acemoglu and J. A. Robinson. 2012. *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*. Random House. Burnside, Craig, and David Dollar. 1997. "Aid, Policies, and Growth." Policy Research Working Paper No. 1777. World Bank, Washington, DC. See also: IEG. World Bank. IFC. MIGA. 2010. *The World Bank's Country Policy and Institutional Assessment. An Evaluation.* Washington D.C.
[63] Government of Palau. 1996. *Palau 2020 National Master Development Plan: Issues, Options and Strategies for Palau's Development*. Koror. Chapter 3.1: Constraints on Development. https://chm.cbd.int/api/v2013/documents/863D1F62-8A10-1396-DEBC-ECF566BE0EF0/attachments/Palau_NationalMasterDevelopmentPlan-2020_2010-06_Part1.pdf.

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policy planning and policy coordination continue to be needed for Palau to grow and develop. MOF has a program to expand community outreach.

National and State Governments

The Constitution states that[64], the national government shall assist in the organization of the state government and delegate powers by law to the state government. Each state is entitled to revenues derived from the exploration and exploitation of all living and non-living resources, except highly migratory fish, and fines collected for the violation of any law within the marine area extending from the land to twelve (12) nautical miles seaward from the traditional baselines (Article XII).

The national government provides annual state block grants to each of the 16 states for operational and capital improvement projects. Except for Koror State, this financing supplies most of the annual financing required by the state governments. Transfers to state governments have almost doubled from an annual average of close to $5 million in the early 2010s to nearly $10 million in FY20. Available audits of State Government finances mostly reveal an account of persistent deficits.[65] The economic development of all State economies would help increase their revenues. The key question is how this can best be achieved.

While most state governments were not strongly impacted by the COVID-19 global pandemic, Koror State faces serious financial difficulties. Koror State began to run small deficits from FY 2016 and these deficits grew significantly with the onset of the pandemic. In FY2019 the state had revenues of $12 million, falling to $5.1 million in FY 2022. Prior to the pandemic, sixty percent of Koror state revenues were from the Rock Islands and Jellyfish Lake visitor fees. The second most important source of revenue is derived from commercial leases which are also dependent on the tourist-based plant. Meanwhile, expenditures are heavily concentrated in payroll, which was 68 percent of FY2019 total expenses. Fortunately, the state had saved a significant part of prior year surpluses and at the end of FY2019 had accumulated over $20 million in deposits. In addition, the State government has significantly reduced expenses (including through a reduction in payroll) from $11.9 million in FY 2019 to $7.2 million in FY 2022. Koror State is now examining the possibility of taking a loan from the national government.

States other than Koror are extremely limited in their ability to raise local revenues as they cannot levy taxes. While public lands are a primary source of revenues, from the leasing of public lands for housing and agriculture, those same public lands are held in trust for communities. It is the most vulnerable in communities that are most reliant on public land leasing. Although land lease fees are generally quite low, it is still extremely difficult for States to raise lease fees without making land inaccessible to those groups that are a priority to serve. Many States, especially those far from Koror and on the outer islands, have very little public land and thus cannot raise revenues in this manner. Leasing of submerged lands thus becomes very attractive, but this raises environmental and social concerns.

States have the right to assess fines for illegal resource use, although national law limits the reach of these fines. However, those groups most likely to incur fines are again often the most vulnerable groups in a community, and thus the same moral quandary arises. States find it

[64] 1979. Constitution of the Republic of Palau. The Constitution of the Republic of Palau. Palau Constitutional Convention January 28 – April 2, 1979. Koror, Palau

[65] Republic of Palau Office of the Public Auditor. https://www.palauopa.org/state-governments.html#

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challenging to raise revenues by fining their most vulnerable. Reducing vulnerabilities, particularly by increasing food security, securing safe homes, and strengthening cultural ties is an immediate priority before entertaining new revenue sources.

Tourism fees and business licensing offer another avenue for revenue generation, but again States must balance the incoming State revenues with the income of their small businesses that operate in the tourism industry. States would rather small businesses and communities benefit from tourism and are reluctant to raise tourism and business license fees because these will hinder the progress of small businesses.

Continued funding by the National Government budget process, and continued access to technical services to improve the efficiency of State expenditures, is an immediate priority. An important challenge for all the states is the need to strengthen planning and align national and state development objectives and budgets.

A Council of Chiefs, recognized in Palau's constitution, composed of a traditional chief from each of the states advises the President on matters concerning traditional laws, customs, and their relationship to the Constitution and the laws of Palau. As advisors to the President, important matters concerning the society and the people are addressed with the President either at meetings directly between the Council of Chiefs (*Rubekul Belau*) and the President or at Leadership meetings called on by the President or the Congress. Some of the recent events in which the Council of Chiefs played crucial advisory roles include (i) the major drought crisis in 2016, (ii) the Palau National Marine Sanctuary establishment, (iii) the COVID-19 Pandemic, (iv) the 2020 Our Oceans Conference, and (v) providing recommendations to the Compact of Free Association Review Committee.

The National Government also provides annual appropriations to other non-government agencies and activities including the Palau National Museum, Micronesian Legal Services, Palau Community Action Agency, Palau Red Cross, Palau International Coral Reef Center, and a Youth Congress.

State-Owned Enterprises

The SOE sector in Palau is not large in terms of the number of entities, in comparison to other Micronesian economies. There are four major SOEs: the Palau National Communications Corporation (PNCC), the Palau Public Utilities Corporation (PPUC), the National Development Bank of Palau (NDBP), and the Belau Submarine Cable Company (BSCC). The provision of airport operations remains a government department, as is the Post Office, and the port is owned by Koror State but operated by a private company under a 25-year concession. The operation of the airport terminal is contracted to a public-private partnership (PPP) through the Japan International Cooperation Agency (JICA) and a private Japanese corporation. Government activities that could in the future be considered for SOE status and operation or for privatization include public works, printing, postal services, public radio and television broadcasting services, convention and recreational centers, and coastal ferry services.

There is no legal framework to support the commercial operations of the SOE sector. Board members are political appointees and may lack experience in the functions of the SOE. SOEs are not required to operate on a commercial basis and prices are set at affordable rather than commercial rates. There is no performance monitoring and corporate planning is weak.

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Maintenance is often insufficient and excessively deferred, resulting in the disruption of services and, ultimately, in higher capital costs.

The President issued an SOE policy in 2014 which focused on the future legal, regulatory, and governance arrangements. The policy was re-affirmed in 2021. A set of policy principles were outlined to support the primary objective, the specification of community service obligations (CSOs). This included the appointment of qualified directors excluding political appointees, preparation of annual performance targets, and performance monitoring and benchmarking. An SOE bill was drafted in 2022 based on the policy and is pending with the President's office. PPUC underwent a series of operational and regulatory reforms in 2020-2021 linked to an ADB policy-based loan.[66]

To further progress SOE initiatives, the Ministry of Finance will employ the PPUC as a pilot. As the SOE policy has been approved by the PPUC Board of Directors, this provides some foundation to build on. The Ministry of Finance intends to embed the policy in its enabling legislation RPPL 9-4, and this will provide the Ministry with the authority to mandate SOE policies. Additionally, there is a need for a new board nomination procedure to ensure that the SOE sector operates with qualified directors who possess the necessary skills and experience to effectively oversee the operations of these entities. This will help ensure that the SOE sector operates more transparently, effectively, and efficiently meeting its CSOs and delivering high-quality services to the people of Palau.

Donors and Development Partners

International development assistance plays an important role in the economy accounting for 26.2% of GDP in FY2021 and 52% of total government revenue. Major donors are the governments of the United States, Japan, and the Republic of China. Major development partners are the Asian Development Bank, the United Nations Development Program, and the World Bank. US Federal Services and Federal Grants are also significant.

Varying donor and development partner development objectives, modalities, time frames, processes and procedures, and sector preferences can present a great challenge to coordinating development activities in the national interest. Bilateral and multilateral donors and development partners' investments may not be aligned with current national and sector development priorities when these priorities are not currently coordinated. Development investments may not always be subjected to a detailed analysis of projected social, environmental, cultural, and economic costs and net benefits, including assessments of the recurrent cost implications.

All of Palau's donors and development partners have signed the Paris Declaration on Aid Effectiveness (2005) and the Accra Agenda for Action (2008).[67] This binds the country's donors and development partners to align their assistance with the development needs of Palau.

As they are outlined in this PDP, Palau's development objectives, priorities, policies, and plans should lead the country's growth and development. Donor and development partner development programs could be better coordinated in the interest of Palau's development. The

[66] ADB. 2020. Proposed Programmatic Approach and Policy-Based Loan for Subprogram 1 and Technical Assistance Grant Republic of Palau: Palau Public Utilities Corporation Reform Program. Manila

[67] OECD. The Paris Declaration on Aid Effectiveness (2005) and the Accra Agenda for Action (2008): https://www.oecd.org/dac/effectiveness/34428351.pdf and https://www.oecd.org/dac/effectiveness/45827300.pdf

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government's planned response is covered under the section Development Policy Planning and Statistics below.

Private Investment, including Foreign Direct Investment

As depicted in Table 12 Palau's private sector is less productive when compared with the private sectors of Guam and the CNMI.

Table 12: Comparative Private Sector Productivity

Factor	Palau	Guam	CNMI
Gross Fixed Capital Formation (US$ m)[68]	78.2 (2018)	1,596.3 (2021)	183 (2019)
Tourism			
Number of visitors	89,726 (FY2019)	1,532,412 (2018)	487,008 (2019)
Population	17,893[c] (2019)	153,836[a] (2020)	47,329[a] (2020)
Number of visitors per capita	5.01	9.96	10.29
Gross Business receipts ($ m)[69]	16.7 (2013)	296.5 (2020)	44.8[b] (2010)
Population	18,820[c] (2013)	153,836[a] (2020)	47,329[a] (2020)
Gross Business receipts per capita	887.35	1,927.38	946.56

Source: see footnotes.

a) United States 2020 Island Areas Census: https://www.census.gov/newsroom/press-releases/2022/2020-island-areas-northern-mariana.html

b) A fall in gross business receipts recorded in 2010 was due to the closure of CNMI's garment industry.

c) SPC estimates. See footnote 8.

Private investment has nevertheless taken place (Table 13). This investment could be more, longer-term, and more domestic value-adding if the environment for private sector development was more conducive to growth and development goals.

Table 13: Private Investment

Indicators	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Gross Fixed Capital Formation (Current price)	60.1	54.7	79.2	86.5	87.1	87.4	81.1	102.3	110.3	93.2
Loans to Deposit Ratio (%)	23.5	24.1	20.8	15.4	13.4	15.3	15.4	14.6	12.9	11.9

Source: Graduate School USA, EconMAP

Economic growth and diversification require a relatively stable, open, and risk-free environment for private investment, commerce, and trade. However, the earlier World Bank's Ease of Doing Business Index, the annual ADB and World Bank Country Policy and Institutional Assessments, and the private sector assessments by the Private Sector Development Initiative

[68] Trading Economics: https://tradingeconomics.com

[69] https://www.pacificsbdc.com/sites/default/files/2020-gsy_final.pdf. Page 241

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all point to an environment for private sector development in Palau that could be further improved.[70] Issues confronting private sector development are summarized and listed on the MOF website. Palau's environment for private sector development is further disadvantaged by the economy's dependence on grants from foreign governments lessening the value of domestic private sector-led revenue generation and leading to the loss of Palauan labor to higher wage economies. The latter concern not only results in a loss of talented people but also creates pressure to raise domestic wages.[71] New labor and labor market development policies could help ease private sector activity as well as priority social and political concerns.

The government is continuing reforms to improve the environment for private sector investment including foreign direct investment. Palau has introduced secured transactions law and an online registry. The Government with ADB PSDI support is currently assessing the possibility of introducing a credit register that will assist with reviewing credit applications. The International Commercial Arbitration Act 2021 was signed into law on 29 April 2021. The government has started policy work on a domestic arbitration policy and law. The OEK also passed an updated Corporations Law, which was signed into law on 29 September 2021. The Ministry of Finance commenced implementation of the new Corporations Law by developing technical specifications to establish a new electronic registry. The implementation of the online registry will commence in March 2023. This will provide an online platform that will be developed incrementally as further reforms are completed. The President issued an executive order effective 3 September 2021 that formalized a policy statement for Public-Private Partnerships (PPPs). This statement helps minimize contingent liabilities from PPPs with procedures guiding the selection, monitoring, and regulation of private sector partners and transactions. It is complemented by a parallel PPP transparency procedure, mandating the disclosure of key terms and conditions for prospective transactions, to strengthen market confidence and promote competition. As previously mentioned, the government is also continuing reforms to SOEs, including governance legislation and utility reforms.

The rural and outer island state governments will remain the primary employers in rural communities in the short term. Communities would like to develop training programs to improve the efficiency of rural and outer island state governments and move trained state personnel into private enterprises. This is a long-term priority. In the short-term, however, state governments and NGO partners aim to support the development of private enterprise through a suite of actions, ranging from the creation of markets (physical and literal), more secure land and aquaculture leases, construction of food processing centers, and support services such as business planning

[70] ADB. 2007. Palau: Policies for Sustainable Growth, A Private Sector Assessment. Manila
ADB. 2017. Private Sector Assessment for Palau Policies for Sustainable Growth Revisited. Manila
The World Bank. 2019. Ease of Doing Business in Palau. Washington DC
The World Bank. 2010 Country Policy and Institutional Assessments 2010 Assessment Questionnaire. Washington DC. See criteria #s 4 5 and 6 on structural adjustment policy.
The World Bank 2019. Doing Business. Washington DC.
http://www.adbpsdi.org/p/what-is-psdi.html
ADB 2019. *Annual Report on the 2018 Country Performance Assessment Exercise. Institutional Document*. Manila. Only the ADB publishes ratings. See also: ADB (2016) Mapping Fragile and Conflict-Affected Situations in Asia and the Pacific The ADB Experience. Manila
https://www.adb.org/sites/default/files/publication/211636/mapping-fcas-asia-pacific.pdf.

[71] See: Ralph Chami, Ekkehard Ernst, Connel Fullenkamp, And Anne Oeking (2018) *Is There A Remittance Trap? High Levels Of Remittances Can Spark A Vicious Cycle Of Economic Stagnation And Dependence*. Finance & Development, September 2018, Vol. 55, No. 3 and David Abbott and Steve Pollard. 2020. *Mired in MIRAB.* ANU DevPolicy Blog. Canberra: https://devpolicy.org/mired-in-mirab-aid-and-bureaucracy-20200303/ and https://devpolicy.org/mired-in-mirab-migration-and-remittances-20200302/

and loan application help for the most vulnerable community members. The Small Business Development Center and the National Development Bank of Palau will continue to provide advisory and financial assistance to small businesses. Expanding the state's capacity to offer these support services to small entrepreneurs, especially those in food production, is an immediate priority for these state communities. The Ministries of Finance (MOF), Human Resources, Culture, Tourism and Development, and Public Infrastructure and Industries plan to jointly create a Development Unit for investment promotion. MOF also plans to support the further development of e-commerce and FinTech.

A private sector development strategy is needed. The government will work with representatives of the private sector, including foreign investors, to list, detail, and prioritize remaining issues of concern, and then to jointly work through these issues with a view to gradually adopting improved policies.

Land

The land is a historical social and cultural as well as potentially an economic asset. Its ownership and use can be very sensitive matters.

There are clear laws, procedures, and performance standards for land titling. They can only be overturned in the Supreme Court, and this only allows for an error in the process, for example, from any imperfection in registering the title. Parties under the Land Court, such as the Palau Public Land Authority and State's Land Authority, are responsible for the administration of their subdivisions and infrastructure.

Palauans can hold freehold titles. Foreigners can lease public land for 100 years and private land for 50 years with an option to extend (subject to agreement) for an additional 49 years. However, land, including submerged land and coastal areas, leased to non-Palauans, including the U.S. military, often cannot be accessed by Palauans. This can cause significant impacts on cultural practices and livelihoods.

Public land administered by State Public Land Authorities on behalf of the people is a critical social protection resource. State leases for homes, farms, or aquaculture provide some families with their only access to land (which is, in turn, the only asset they can use to acquire credit for home loans or farm loans). Most States have robust leasing programs, although ongoing legal adjudication to determine a Certificate of Title to public land can delay land leasing. Most States have some areas of clear public land and are already administering leases. Thus, the expansion of lease programs is a medium-term priority for most States.

It can be very difficult to implement new tourism and other investment policies in Palau where access to land is required and where authority over that land is dispersed amongst national and state governments and individual families. As a result, tourism developments have been mostly uncontrolled, and in an unregulated market, the tourism industry, and hence the overall economy has been subject to volatility and large swings in the number and nature of visitors.

The Land Court in Palau plays a critical role in land ownership by ensuring legal and transparent land transactions through the registration of land titles and issuance of certificates of title. Disputes between state-owned lands and privately-owned lands are typically addressed by the Land Court, with private land disputes typically settled in the Supreme Court. The number of land disputes complicates Palau's land market. A total of 2,322 new land claims in all 16 states were submitted for settlement of ownership between September 2013 and September 2022 and

a total of 3,148 claims remained to be settled as of September 30, 2022. The unresolved claims may be due to several reasons, including disputes between parties or delays in the legal process. These figures highlight the importance of resolving land disputes to ensure social and economic stability and help land planning and better facilitate private investment and economic development.

Further study of land and housing issues and practices is required with a focus on how to strengthen land ownership and use, possibly with a further focus on drafting a new policy through extensive consultations.

Core Government Functions

Good Governance

Palau ranks highly in terms of political stability and the rule of law. Palau's judiciary has a reputation for a high degree of independence and integrity. It has maintained its top score on the 2020 Freedom House assessment of its judiciary. National Supreme Court decisions are published and readily available. A small claims court sits weekly, and legal representation is not required. Bills are made public and public hearings are conducted. Palau is currently a safe environment in which to live and conduct business.

Koror has prioritized improving its capacity for adaptive management, across multiple sectors due to multiple causes (in addition to climate change). Improvements to public safety and regulations were a high priority for 71.4% of surveyed urban households. Better access to information was a high priority for 61.5% of households.

The outer islands face issues of safety and security that are not present in Koror or Babeldaob. For instance, in Sonsorol and Hatohobei, incursions by illegal fishing boats occur more frequently than anywhere else in Palau. Communications are limited to just a few hours per day by radio, making it challenging to obtain help during emergencies. All communities face safety and security issues (e.g., alcohol-related crimes and accidents, wildlife poaching, theft), and an immediate need is to increase police presence, or expand the enforcement capacity of Rangers, to deter such crimes.

According to the World Bank World Governance Indicators Palau ranks relatively low in government effectiveness and control of corruption, that is in comparison to over 200 countries. Palau's ranking in the rule of law has also fallen from 2011 to 2021. However, regulatory quality has improved over the same period (Table 14). MOF plans to further support the expansion of e-government and establish an assessment and certification program for each of the bureaus under the Ministry of Finance and to establish a program for ethical training and certification of government staff.

Table 14: World Bank Governance Indicators[72]

[72] https://info.worldbank.org/governance/wgi/Home/Reports
The chart shows the percentile rank of the country on each government indicator. Percentile rank indicates the percentage of countries worldwide that rate below the selected country. Higher values indicate better governance ratings. The Worldwide Governance Indicators are a research dataset summarizing the views on the quality of governance provided by many enterprise, citizen and expert survey respondents.
(a) The process by which governments are selected, monitored, and replaced:

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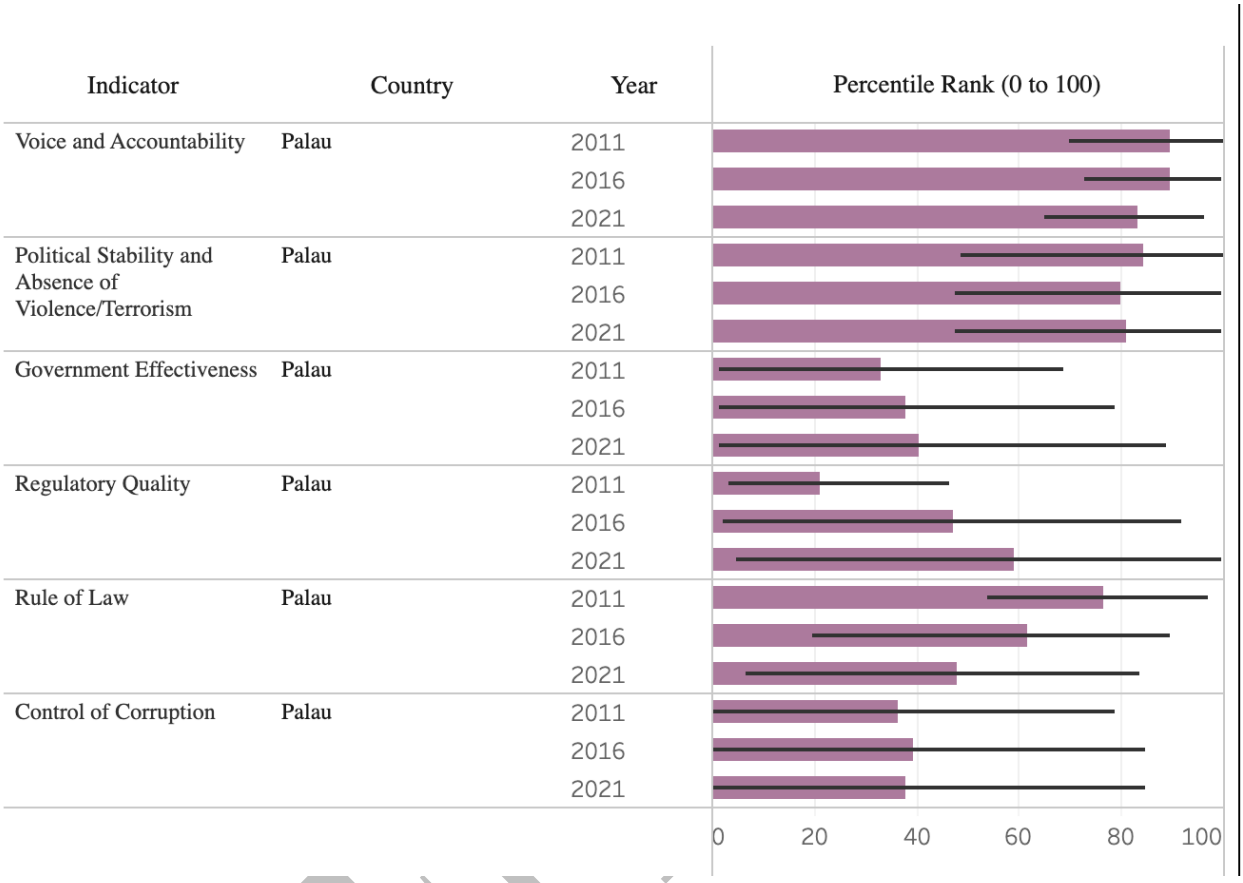

Public Service Delivery and Investment

The Government employed just over 40% (3,502 persons of the total employed in Palau in FY2020 (Table 3). This compares with 26% in Guam (2020 data) and 12% employed in public

1. Voice and Accountability (VA) – capturing perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.
2. Political Stability and Absence of Violence/Terrorism (PV) – capturing perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism.

(b) The capacity of the government to effectively formulate and implement sound policies:

3. Government Effectiveness (GE) – capturing perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
4. Regulatory Quality (RQ) – capturing perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

(c) The respect of citizens and the state for the institutions that govern economic and social interactions among them:

5. Rule of Law (RL) – capturing perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.
6. Control of Corruption (CC) – capturing perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.

administration in the CNMI.[73] Palau's public sector is less productive when compared with that of Guam and the CNMI (Table 15).

Table 15: Comparative Public Sector Productivity

Factor	Palau	Guam	CNMI
Education			
Student to faculty ratio (2022)	10:1	13.67:1	24:1
High School Graduation (2022)[74]	27%	37.67%	29%
Health			
Health expenditure per person (US$ 2019)[75]	1,885.00	931.00	451.00
Universal Health Coverage Effective Health Coverage (2019)	45.1	63.8	60.4

Source: see footnotes

Modernization of the public service could help improve the delivery of public services. The Ministry of Human Resources (HR), Culture, Tourism, and Development is reviewing the HR structure of its own Ministry against public service needs. Once that review is complete it plans to work with all other Ministries and State Governments to review their structures. The Ministry of Finance has requested IMF assistance to conduct a wage study. A long-term program in support of the modernization of the public sector will be needed to continue to assess the system, ensure that HR management is consistent across all Ministries, continue management training, and assess the need for new legislation.

Public Finance Management

The 2023 Public Expenditure and Financial Accountability (PEFA) assessment recognized good public finance management in several areas including the transparency of public finances, management of assets and liabilities, and policy-based fiscal strategy and budgeting.[76] PEFA further records good performance in the management of payables and the non-existence of expenditure arrears and good internal controls with robust segregation of duties enforced through the new Financial Management Information System (FMIS). However, the absence of an internal audit function and the lack of a payroll audit were recorded by the PEFA as concerns. Budget reliability scored relatively low, apart from the dimension relating to allocations for contingency reserve. Financial reporting reflects good practices in data integrity with timely reconciliations of bank accounts and advances, and quarterly in-year budget execution reports provide good coverage and are published on a timely basis. However, the preparation and audit of annual financial statements are several years in arrears. Furthermore, although the Office of the Public Auditor (OPA) scored high on its independence, other areas of external audit and scrutiny received low scores. The PEFA will be followed by the preparation of a Public Finance Management roadmap to be implemented by the government over the period of the PDP.

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[73] US Census. 2020. https://data.census.gov/table?g=040XX00US69&d=DECIA+Northern+Mariana+Islands+Demographic+Profile&tid=DECENNIALDPMP2020.DP3

[74] https://www.univstats.com/states/

[75] Institute for Health Metrics and Evaluation: https://www.healthdata.org/

[76] The Republic of Palau. Public Expenditure and Financial Accountability (PEFA) Performance Assessment Report (2022). Draft Report.

The government recently approved a Fiscal Responsibility Act (18 November 2021) that incorporates debt management policies and strategies, approved the External Debt Management Act (signed into law on 18 November 2021) and established a Public Debt Management Unit (effective April 2022), approved a comprehensive tax reform package (signed into law on 29 September 2021), and operationalized a National Infrastructure Investment Plan, 2021 to 2030. The Ministry of Finance (MOF) also started to produce Economic and Fiscal Updates to underpin the budget and operationalized Medium-Term Fiscal Strategy Guidelines (29 June 2022). The government has also supported the preparation of a social security reform bill. ADB and PFTAC are assisting the government to strengthen its public finance management.

Other key MOF initiatives in improved public finance management are to: (i) finalize pension reform by switching to a Defined Contribution Plan by FY 24, (ii) create a position for an Internal Auditor/ Controller General, (iii) construct a tax building in Babeldaob near the capitol building in FY 25, (iv) construct a new main facility for customs and immigration in Malakal at a cost of $2 million, to construct additional customs and immigration offices in Babeldaob, Peleliu and Angaur, and to further strengthen ASYCUDA and immigration information systems over the period of the PDP, and (v) establish a debt management system in FY24 costing an estimated $3 million.

The Ministry of State's Bureau of Domestic Affairs (BDA) recognizing the need to support strengthening internal capacity within the state government's executive and legislative offices entered a joint pilot partnership with the UNDP to improve transparency, accountability, and community participation at the state level. The joint pilot partnership, the Local Governance Strengthening Project (LGSP), has provided the space for collaborative work between the MOF, Office of the Public Auditor, five pilot states, and the Ministry of State to engage within the local government sector to identify gaps and to develop diagnostic tools to strengthen local governance. One of the successful diagnostic tools identified is the development and adoption of the state government's public finance management standard operating procedures (PFM SOP) to enhance capacities surrounding management, documentation, and reporting of fiscal and public assets and resources towards consistent and sustainable delivery of public goods and services. In addition, increased public participation and engagement in policy development through increasing public awareness of the individual and collective civic responsibility prescribed by the Palau Constitution as well as their respective state government Constitutions. This diagnostic tool has played a contributing role in increasing youth and community engagement and influencing policy development.

The Ministry of State has utilized the joint pilot partnership towards developing content and contextualized diagnostic tools to strengthen local governance at the state government level and is now seeking the resources to expand and extend the diagnostic tools to benefit the remaining eleven state governments outside of the LGSP.

Development Policy Planning and Statistics

Development planning does not stop with the publication of a new national development plan. Markets, technologies, and other factors and conditions for development change creating both new opportunities and new challenges. New investments in development also raise inevitable conflicts of interest, differences of opinion, and technical and other policy challenges. An investment that is assessed as economic may raise social, cultural, and environmental concerns while full cultural and environmental protection may counter economic growth. National,

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sector and state policy formulation all need to be continuously coordinated in the interest of future growth and development.

The government has approved or is developing policies in fiscal and public finance management, non-communicable diseases, tourism, culture, youth, aging, and public sector human resources management. Further, new policies in economic development, land, labor, private sector development, social protection, agriculture, and fisheries are needed to help achieve development outputs and outcomes.

The identification of public infrastructure projects has tended to be prioritized as the main development concern in the past, sometimes with an inadequate assessment of recurrent cost implications and overall feasibility. Whereas investments in climate adaptation will be needed, it should also be noted that the PDP national-level analysis has prioritized many low-cost programs that do not require expensive investment in infrastructure. Given the current and projected limited population and visitor numbers and limited economy, some investments in infrastructure may not be economic. It is therefore important that recurrent costs and potential subsidies or community service obligations are carefully estimated.

Direct donor-department government project planning can overshadow both sector and national priorities. A permanent institution of central and state government policy planning is therefore needed to ensure that national and sector plan priorities are identified for funding and to facilitate the coordination and formulation of new policies in support of growth and development. Nearly all of Palau's donors and development partners have endorsed the Paris Declaration of Aid Effectiveness.[77] This binds the country's donors and development partners to align their assistance with the development needs of Palau.

MOF plans to establish a central economic planning office that will include an Aid Coordination Office and be responsible for the continued assessment of macroeconomic performance, the strengthened assessment of all sector development, and the assessment of economic feasibility including recurrent cost implications of all investment projects, proposed PPPs, and other capital expenditure including that of the SOEs.[78] The PDP will be presented to Palau's donors and development partners as well as all domestic development partners to garner support for stronger, future aid coordination.

Sector policy planning requires strengthening across the whole government, however, priority sectors for early attention are energy, health, housing, natural resource development (to help diversify the economy), tourism, water and sanitation, and infrastructure in general in terms of feasibility analyses.

The primary governance priority for all States is to enable the implementation of the state master plans, land use plans, and zoning codes so that development proceeds in a proactive, well-planned fashion rather than reactively. The master plans also include objectives to improve state laws and policies and improve social services. Hiring state planners and funding state planning commissions is an immediate priority. Empowering representation and participation, particularly from traditional leaders and community groups, through planning commissions is another immediate priority. Ensuring multi-state spatial and land planning technical support

[77] OECD. The Paris Declaration on Aid Effectiveness (2005) and the Accra Agenda for Action (2008): https://www.oecd.org/dac/effectiveness/34428351.pdf and https://www.oecd.org/dac/effectiveness/45827300.pdf

[78] See also: Government of Palau and Pacific Islands Forum Secretariat. 2013. Compact Peer Review Report. Suva and Ngerulmud.

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services, such as spatial data support as provided by PALARIS[79] and regional and cross-border planning, is another immediate priority. Building on partnerships between state governments and the national government, as well as between communities and NGO partners, remains a priority that can be achieved through dedicated state planners and regional planning bodies, and associated technical assistance.

Increasing the capacity of state governments to make data-based decisions is an immediate priority. This can be accomplished by financing and enabling access to technical assistance in engineering, planning, financial analysis, Environmental Impact Statements, CIP planning, and scenario planning. Having access to an annual technical assistance budget or personnel is an immediate priority.

Participatory governance remains a priority for Palau's communities, and thus empowering representative planning commissions is an immediate priority. Communities want to strengthen ties between traditional and elected leaders and engage traditional leaders more deeply in governance, by providing forums and decision-point opportunities. This is an immediate- to medium-term priority for most communities. Improving communications and transparency, including by taking advantage of new communications mediums and the Internet, is a medium- to long-term priority. Many state offices need repair or are at risk of climate change. Building new, modern state offices is a long-term priority for some communities.

Capacity for the collection, verification, analysis, and reporting of statistics is most limited. Palau relies on other agencies to collect important information on the economy. The government has adopted a policy not to burden the private sector with requests for statistics but to adopt a central collection point for each of the major economic categories of information. Strengthening the capacity of state governments and other units of the general government to provide timely and adequate financial statements would support the compilation of fiscal data at the general government level.

The Office of Budget and Planning will continue to conduct a population census every ten years, a household income and expenditure survey every 5 years, and develop a series of quarterly economic statistics. A key objective during the plan period will also be the timely production of existing primary data sources. Other important statistics that need to be developed include gender-disaggregated statistics, a more detailed breakdown of tourism, statistics on labor, migration, capital account transactions, external debt (public and private), foreign direct investment, and improved public sector debt statistics. Surveys to support the formulation of new government policies are also required.

According to the World Bank's assessment of statistical capacity, Palau's capacity to produce statistics is about average when compared with other Pacific Island Countries that are members of the World Bank (Table 16). However, there is much room for improvement when Palau's capacity is compared across the Asia-Pacific region and globally. Palau is one of the few countries in the Pacific that does not yet have a National Statistics Development Strategy.

Table 16: World Bank Statistical Capacity Indicator

[79] The Palau Automated Land and Resource Information System, Bureau of Budget and Planning, Ministry of Finance. PALARIS is the home of Palau's national Geographic Information System (GIS) including spatial data storage and analysis: https://www.ctc-n.org/about-ctcn/national-designated-entities/palau-automated-land-and-resource-information-system-office

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Country	2010	2014	2016	2020
Fiji	53.3	71.4	58.9	56.7
FSM	27.8	36.7	32.2	43.3
Kiribati	36.7	35.6	40.0	42.2
Palau	34.4	36.7	48.9	48.9
Papua New Guinea	41.1	46.7	50.0	52.2
RMI	41.1	46.7	28.9	35.6
Samoa	48.9	53.3	54.4	57.8
Solomon Islands	40.0	53.3	54.4	55.6
Tonga	58.9	50.0	52.2	54.4
Tuvalu		33.3	40.0	47.8
Vanuatu	42.2	43.3	50.0	36.7
East Asia and Pacific Average[1]	69.4	71.4	73.6	74.5
Global Average[1]	60.2	60.4	61.2	58.2

Note 1: Excluding high-income countries.
Source: Statistical Capacity Indicator Dashboard, World Bank (http://datatopics.worldbank.org/statisticalcapacity/SCIdashboard.aspx)

The Office of the President is developing a new structure for national development planning.

Plan Directions

⇒ Participatory decision-making helps support growth and development.
⇒ Donor and development partner development programs could be better coordinated in the interest of Palau's development.
⇒ A private sector development strategy will help improve the environment for investment, commerce, and trade.
⇒ A new land policy could facilitate private investment and economic development as well as urban development planning and help to further protect Palauan ownership.
⇒ A new labor policy and labor market development plan could ease private sector activity as well as priority social and political concerns.
⇒ A long-term program in support of public sector modernization would help improve public sector productivity.
⇒ Further technical assistance would help strengthen the management of State government finances. An important challenge for all the states is to strengthen planning and align national and state development objectives and budgets.
⇒ A permanent institution of central government policy planning will help facilitate the formulation of new policies in support of growth and development.

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⇒ State planners need to be hired and representative and participatory planning commissions empowered and resourced to implement state master plans, land use plans, and zoning codes.
⇒ Multi-state, cross-border, and state-to-national coordination should be strengthened by providing regional planning services (via a central planning office under PNCA 31).
⇒ Multi-state and spatial planning needs support by securing long-term assistance for communities based at PALARIS.
⇒ Access to technical expertise in engineering, planning, financial analysis, Environmental Impact Statements, CIP planning, and scenario planning should be provided through annual financing, or the provision of personnel dedicated to community needs.
⇒ Continued State Governments funding will ensure that the commons are shared equitably.
⇒ The police presence (through MOJ and/or local deputies) and enforcement capacity of Rangers need to be strengthened in all communities.

SUMMARY OF COUNTRY AND COMMUNITY PRIORITIES

The country and community priorities are summarized as follows:

Country	Community
Progress the quality of social support	
Programs to renew the quality of education, resolve NCDs and mental health disorders, and build the social protection framework supported by new social, land, and labor policies. Disease preparedness. Relocate hospital.	Create resilient, thriving neighborhoods. Grow the population. Increase sustainable food security. Provide new or repair outer island transportation. Improved educational facility.
Nourish Palauan culture and identity	
Design and support delivery of cultural education programs and curriculum.	Offer Cultural programming and curriculum. Restore Cultural sites. Build, retrofit, or equip a network or Cultural Centers. Increase management of cultural assets in the RISL World Heritage site. Support traditional food production practices in fisheries and agriculture.
Maintain the environment and counter climate change	
Programs to adapt, mitigate, and manage disasters and climate change, and enforce environment policies.	Improve, expand, and build new climate-proof Public Water Systems. Increase climate resilience.

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Draft new natural resource policies. Adapt infrastructure for climate change.	Institutionalize erosion and sedimentation control and restore land cover. Manage and reduce waste and reduce pollution from dumps and sewage. Continue land, freshwater, and marine planning for climate change and development. Improve waste disposal. Cleaner environment.
Restore economic growth	
Land and labor policies drafted in support of social & economic growth. Improve private sector productivity by improving the environment for private sector activity. Continue to reform all public finances to stem losses, raise revenues, reduce debt, and coordinate aid. New Agriculture and Fisheries commercial investment policies. Fund fiscal buffers and the trust fund.	Set enabling conditions for economic growth. Support small businesses and entrepreneurship. Support small-scale agriculture and fisheries. Increase tourism products, expand promotion, and train Palauans in tourism. Affordable supply of electricity and water. More jobs.
Strengthened governance for growth	
Design and implement strategies to improve public sector productivity. Design and implement a strategy to promote the growth of the private sector. Adopt participatory planning and strengthen government-wide public policy formulation. Programs to unify Palau. Better coordinate aid.	Enable, implement, and coordinate Master and Land Use Plans, Zoning, and CIP. Continue, support, and strengthen State planning. Stabilize and increase access to technical planning, engineering, and analytical expertise. Strengthen States' Public Finance Management. Support participation via Commissions. Strengthen police presence and increase Ranger enforcement capacity. Improvements to public safety.

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	Better access to information.

As to be expected, the development priorities and PDP directions derived from the country context can differ from those expressed by the urban, rural, and outer island communities. Under the output of progressing the quality of social support, the country context priorities are focused on broad programs to improve the quality of education, resolve NCDs, and build the social protection framework. The communities' priorities are more directly focused on food security, thriving, and accessible neighborhoods and growing the population. The communities share a concern for improved education.

Regarding the cultural pillar, to nourish Palauan culture and identity, the country context focuses on education programs to raise awareness and promote Palauan culture. The rural and outer islands' priorities also focus on offering cultural programs, and they also prioritize the restoration of cultural sites and providing a functioning network of cultural centers. Maintaining cultural sites and practices is also a priority for urban residents.

The country overview for the PDP pillar to maintain the environment and counter climate change includes policy and management concerns in addition to broad and targeted programs. Rural and outer Islands and urban communities prioritize waste disposal, sewage, potable water, and correcting land erosion as well as adapting to climate change.

Concerning the “restore economic growth” pillar, the country context emphasizes the need for new, broad land and labor policies in support of both social and economic growth and to continue to improve the fiscal situation and reform public finances. The rural and outer islands share a concern for improving enabling conditions for economic growth. The communities also specifically prioritize support for small businesses and for more tourism products and skills in tourism. Urban communities express concern over the expense of utilities and the need for more jobs.

Lastly, for the “strengthened governance for growth” pillar, the country overview and the communities share a common concern to improve policy, spatial, and budgetary planning. For the rural and outer island communities, this concern stretches to the need for strengthened technical planning, engineering, and analysis. The country context recognizes the need to design and implement strategies to improve the environments for business and government performance whereas the rural and outer island communities prioritize direct assistance to small businesses. The urban communities and the outer islands are also concerned with public safety and better access to information.

Many of these priorities are of a recurrent cost nature, they are comparatively low cost and yet they could have an important impact on the country’s growth and development.

All these development priorities direct the formulation of sector strategies and development projects and programs.

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DEVELOPMENT SECTOR STRATEGIES, FINANCING, RESULTS MONITORING, AND COORDINATION

Development sector strategies have been prepared in a participatory manner. Sector leads appointed by relevant Ministries and SOEs led the drafting. All sector strategies have been directed by the PDP country and community priorities previously derived.

Each sector draft first states the sector goal. This is contrasted with an assessment of sector status and trends to produce a logical strategy for sector growth and development. The strategy in turn justifies priority programs and projects to be funded under the period of the PDP and then beyond the plan.

The sector strategy is summarized in a one-page framework that:

1. Links PDP priority programs and projects with annual budgeted expenditures from FY24 to FY27.
2. Summarizes how projected results, that is Ministry and SOE outputs, sector outcomes and national impact will be monitored.
3. Highlights where coordination with other agencies is needed to achieve results.

Guidelines for completing the frameworks can be found in the MOF website.

Sectors covered are Agriculture, Education, Energy, Environment, Financial Services, Fisheries and Aquaculture, Health and Human Services, Housing, ICT, Justice and Public Safety, Solid Waste Management, Tourism, Transport – Air, Land and Marine, and Water and Sanitation. Culture-priority programs and projects are listed under the culture pillar at the national level.

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AGRICULTURE

Goal

To increase agricultural production and food system employment opportunities to help improve food security and to diversify the economy.

Status and Trends

Overview: Palau's agriculture can be categorized into three different clusters: (i) Subsistence farming: production for household consumption and the role of food in Palauan traditions and social networks, (ii) Semi-subsistence: production for household consumption including traditions and social networks and occasional sales, and (iii) Commercial: production for local markets. Four types of agricultural products are grown or raised in Palau: (i) root crops (taro, tapioca, sweet potatoes, etc.), (ii) vegetables, (iii) fruit trees, and (iv) livestock (pork, chicken, and eggs). Processing of these products is minimal. Some agricultural products are also used for handicrafts. Agricultural production for ornamentals, wood, or reforestation is covered under the Environment section. Agricultural production is for local consumption and for food for tourists.

Economic Value and Jobs: Since the 1980's the contribution of agriculture to Palau's economy has steadily declined, now contributing about 1.8 percent to Palau's GDP in FY 2021. Over the same period, food imports have steadily increased. For the period FY 2017 to FY 2021, food imports averaged $36 million per year, or about 24 percent of total imports.[80] Food imports, valued at about $34 million in 2021 were more than double that in 2004 and represent an estimated 80% of the value of all food available in the economy.[81] FAO (2016) estimated the annual value of crop and livestock production in 2016 to be USD 7.4 million and USD 2.6 million respectively, and USD 2.9 million for mahogany forests[82]. The great majority of food imports come from the USA, either directly or via Guam. Over 90% of vegetables and almost all meat comes from the USA due to favorable shipping and biosecurity arrangements. Taiwan is the only other regular supplier, providing about a third of the fruit. (Footnote 81).

Less is known about non-commercial production and its value to families as a replacement for imported food or its value in terms of cultural systems and social capital. Just over 3% of households used agricultural products mainly for sale; a further 12.0% partly for sale; whilst 82% produced purely for exchange and consumption (Footnote 81).

The 2020 Palau census shows that there were at least 364 people employed in the agriculture sector, a decrease from 2015's 486 workers. This represented 3% of all employed workers (using a total of 10,798 employed people in 2020), down from 5% in 2015. According to a World Bank analysis in 2023, in 2015 5.6% of the workforce employed in agriculture included 2.9% of Palauans and 7.4% of non-Palauans. For every Palauan working in the sector, there were 3.5 migrant workers, mostly from the Philippines and Bangladesh. Migrant workers have had a

[80] Government of Palau, Ministry of Finance, Bureau of Budget and Planning. 2021. *20 Statistical Yearbook*. Koror. https://www.palaugov.pw/wp-content/uploads/2022/07/2021-Statistical-Yearbook.pdf

[81] World Bank. 2023. Republic of Palau World Bank Programmatic ASA (ID: 180269) Agricultural Sector Diagnostic Assessment Final Report.

[82] FAO. 2016. The State of Palau's Biodiversity for Food and Agriculture

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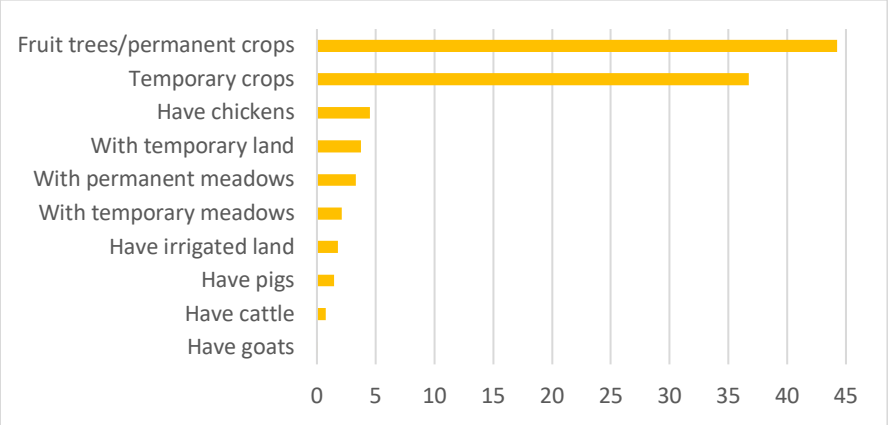
positive impact on the small commercial agricultural sector, although commercial farmers express dissatisfaction with both the cost and availability of migrant farm workers. In the 2020 census almost half of all households reported having some fruit trees or permanent crops and around a third grew temporary crops. Much smaller numbers have livestock, although the value of their livestock crops increased dramatically. See Figure 5.

Increasing the number of skilled and supported farmers in Palau is an immediate priority if Palau is to expand commercial production and individual food security. Post-Covid there has been a resurgence of interest in local farming and demand for training sessions outpaces supply. At least 100 farmers per year are trained in all aspects of farming, although many of these farmers are retirees or weekend farmers who are fully employed elsewhere. Regardless, in the past two years, the number of individuals approaching the Bureau of Agriculture (BOA has increased drastically, which offers a unique opportunity worthy of capitalizing on.

Figure 5: Percent of Households with Different Forms of Agriculture and Livestock (Footnote 81)



Types of Crops and Livestock: Estimated crop areas in 2022 were: fruit trees, 312 ha; betelnut, 215 ha; bananas, 201 ha; tapioca, 121 ha; taro, 116 ha; and vegetables, 115 ha.[83] (and Footnote 81). Pigs are important for traditional events such as weddings and funerals with most pig farmers keeping around five pigs in the backyard. In 2022 there were 44 pig farms with an average of 12 pigs each, and only 15 farms with more than 20 pigs. About half the number of pig farmers were engaged in breeding and finishing, and half were involved in finishing purchased pigs, mainly supplied by the Government pig breeding unit. Also, in 2022 there were 12 farms raising chickens, 11 for eggs, and one for meat, with an average of 87 birds per farm[84] (and Footnote 81). The BOA supported livestock farmers through the production of piglets and chicks. In 2022 piglet production was approximately 250 and chick production was approximately 1,200. Production capacity and demand for livestock piglets and chicks were steadily increasing and will be supported by new facilities being constructed with the assistance of bilateral partners, but operational support in terms of extension services and facility operations is needed. BOA estimates production to be at least 450 piglets including at least 200 piglets from certified breeders and 3,000 chicks by 2027. BOA has a feed mill and manufactures feed which it sells to farmers at cost.

[83] Kitalong C, Nwe YY, and Omai H. 2022. Agriculture in Palau, published by Palau Community College, Bureau of Agriculture and The Japan International Research Centre for Agricultural Sciences.
[84] BOA Pig and Chicken Farm Survey, 2022

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There are over 50 different types of vegetables and fruits that are grown in Palau, but access to seeds is a limiting factor. Seeds are either imported, where they are subject to strict biosecurity protocols and where they pose an invasive species threat or can be sourced from local seedbanks. BOA operates a seed bank and germinates seeds that it sells or provides to farmers. The current seed bank produces 6,000 vegetable seedlings and 1,500 fruit tree saplings per year. Additional emphasis on climate-resilient species is also needed. The seed bank needs to be extended and investment into water systems is also needed to make it climate resilient.

Farms: The 2019 SDG 1st Voluntary National Review (VNR) reported that land used for agriculture increased from 306 hectares (FAO, 2014) to 543 hectares (PALARIS, 2017) and commercial farms increased from 16 to 19 between approximately 2009 and a farm survey in 2016.[85] State Governments have developed land use plans with large swaths (4,255 ha)[86] of combined public and private lands tentatively zoned for agriculture, including the highest suitability arable soils. This shows that there is increasing demand for local produce.

Very few of Palau's soils are arable (estimated at around 14%) and thus improvement through inputs of organic matter is necessary to expand production. Due to steep slopes and proximity of drinking water sources and nearshore marine areas (important to food security and tourism), amendments to soil must be made with care. Fertilizers are applied, but natural compost is preferred both for its organic content and its lower cost and lower environmental impact. BOA produces compost in a small facility. Koror State also produces compost. Neither BOA nor Koror State can keep up with demand, and expansion of compost facilities is needed to further enhance soil quality.

Soils on Babeldaob are often highly compacted, and thus assistance with tilling or industrial-scale groundbreaking is also needed by individual farmers. BOA offers this service to farmers at a very low cost, either by directly tilling (approximately 20 acres per year) or by renting equipment at a subsidized cost. The growing demand needs increased extension services, additional equipment and supplies to service a growing number of farmers on larger swaths of land. The soil on outer islands is very limited and thus focus is on home gardens, tabletop gardens, or traditional root crops for non-commercial purposes. Climate change is leading to more variable rainfall regimes, and farmers can no longer rely on regular rainfall for irrigation. In 2016, 6% of all farms were irrigated, with most of those in Koror and Airai.[87] Commercial farms in particular need assistance to invest in infrastructure such as water tanks and irrigation systems. Many of the best soils and agriculture zones need access roads.

Invasive species pose a significant threat to agriculture, and fruit crops are already severely limited by the presence of fruit flies and coconut is limited by coconut rhinoceros beetles. Root crops are also limited by diseases. Pests and diseases are expected to increase activity with increasing temperatures due to climate change. Persistent control is needed, as is regular research to identify new and emerging biotypes of invasive species and to keep up to date with control methods that will keep them at minimal populations. BOA has a building for a laboratory but needs regular supplies to keep it operational. The Agriculture Sector is one of the top sources of chemical waste in Palau, with fertilizer and pesticide waste emitted to the soil, air, and water in

[85] Government of Palau. 2019. *Pathway to 2030: Progressing with Our Past Toward a Resilient, Sustainable, and Equitable Future; 1st Voluntary National Review on the SDGs*. Ngerulmud. https://sustainabledevelopment.un.org/content/documents/23606VNR_FINAL_21June2019_UN_Version.pdf; ; PALARIS. 2017. Tim Martyn, Tuifa'asisina Steve Rogers, and Meiang Amy Chin. 2014. Linking farmers to markets: Realizing opportunities for locally produced food on domestic and tourist markets in Palau. FAO Subregional Office, Suva

[86] PALARIS calculation, 2023.

[87] NEPC, 2019.

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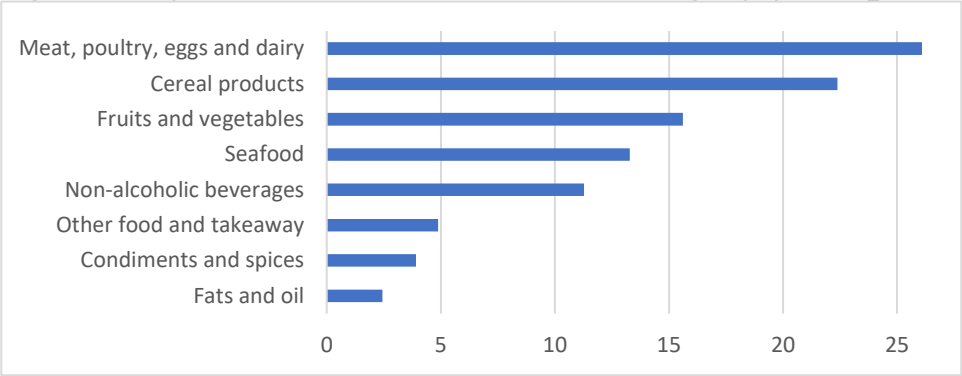
the form of solids, liquids, and gasses.[88] The Palau Environmental Quality Protection Board (EQPB) licenses pesticide applicators and regulates pesticide use, but needs additional laboratory capacity and resources to be able to monitor levels of pesticide residue and minimize chemical residues (this is addressed in the Environment Sector). Due to the prevalence of invasive species, much of this effort must be at the community level.

Consumption Patterns: The 2014 HIES provides some insights into Palauan food purchase and consumption patterns. The income per household averaged USD 25,600 per annum. Food and non-alcoholic beverages accounted for 20% of household expenditure. The major items in the household food budget are shown in Figure 6 and include meat, eggs, and dairy; cereal products; fruit and vegetables; and seafood. Home production accounted for 32% of vegetable consumption and 19% of fruit consumption (Footnote 81).

Figure 6: Major Items in the Household Food Budget (%)



Global food price inflation during the last two years suggests that current household food expenditure is very likely higher than in 2014 in total and as a percentage of total income and expenditure. Pre-COVID tourism accounted for about 10-15% of total food consumption in Palau. However, the percentage of this produced locally is probably lower than the food consumed by the resident population. Tourist operators, hotels, and restaurants rely mainly on imported food supplies because of supply and some concerns about the quality, reliability, and food safety of locally sourced food, although demand for fruit is greater than supply. Tourists consume different foods, with limited consumption of the traditional Palauan staples like taro.

One of the major barriers reported by suppliers and buyers is the lack of a central marketplace. Although grocery stores carry an increasing variety and amount of locally produced food, transactions are still at the individual seller-to-buyer level. There is a significant amount of risk to the farmers who fail to sell their products. Difficulty with supply leads to barriers to investment by buyers, creating a negative feedback loop. With the investment in the internet, the digital marketplace offers a mechanism by which to connect buyers with sellers to improve sales, reduce waste, and improve efficiency. Modernizing sales and investing in a digital marketplace, with ongoing digital support, is a priority across the entire food system.

Food waste is significant, and compost is one viable method to recycle the carbon and nutrients in food waste. Another method is to use innovative mechanisms to extend the shelf life of local products. Starchy root crops (and breadfruit) can be turned into several products including flour, chips, and pastes. Processing offers commercial and climate resilience opportunities. Donor partners are already investing in food processing centers, but additional support is needed.

[88] Palau EQPB. 2021. National Chemicals Profile of the Republic of Palau.

There is demand for an organic certification, which could increase the economic value of Palau's products and open up the potential for export. The first group of women-owned taro farms was certified under the Pacific Organic Standard in 2022. This work is being advanced by NGOs with assistance from BOA.

Governance and Implementation Framework: The lead institution supporting the sector is the Ministry of Agriculture, Fisheries, and the Environment (MAFE)[89]. It consists of three bureaus responsible for agriculture, fisheries, and environment. The mission of the BOA is to promote, develop, protect, and conserve land-based natural resources and to assist families to have the skills, resources, and opportunities to ensure sustained food production, nutrition, food security, and wise stewardship of ecosystems. BOA includes Divisions responsible for Horticulture and Livestock. BOA is also the National Focal Point for the Food and Agriculture Organization (FAO) and serves as the National Convenor for all FAO-related Food Systems Coordination and Measurement activities. Continued cross-sector coordination, planning, and implementation (via a comprehensive local food production and consumption campaign), combined with detailed data collection and analysis, is needed to ensure that Palau becomes more food secure across its entire food security spectrum (from production through processing and distribution to consumption). Monitoring systems need to be modernized and online, which also requires digital training and maintenance.

Palau has benefited from the support of our friends and partners in developing much-needed infrastructure to further efforts in developing our agriculture sector. The following major additional capital investments of (i) a post-harvest processing facility, (ii) a swine breeding facility, (iii) a poultry hatching facility, and (iv) a poultry slaughterhouse are all on track to be completed by the end of 2023. Existing roadside markets have provided an avenue for small-scale producers. Moving toward digitization in the agriculture sector will eliminate the need for a central market.

The Taiwan Technical Mission (TTM) works in close partnership with BOA in providing a range of support services in the fields of livestock, horticultural crops, and aquaculture. TTM has been active for more than 30 years supporting Palau's food security objectives. Services include (i) breeding and distribution of livestock (pigs, chickens, and ducks) to producers; (ii) a horticulture demonstration farm and plant propagation facility that supplies planting materials to growers; (iii) a livestock feed milling facility; (iv) a pig slaughterhouse; (v) support for school and home gardening programs; (vi) extension, training, and technical support services to BOA and farmers; and (vii) technical support for the Palau-Taiwan Farmers Association. TTM also supplies fresh produce to a hospital and six elementary schools. All services and materials are offered at subsidized prices. The Palau Community College Cooperative Research and Extension (PCC-CRE) program is part of the US Land Grant System which supports Palau's agricultural sector through its vocational training courses, an agriculture research station, and cooperative extension services. It also provides an enriched food and nutrition education program. Activities include (i) germplasm conservation of staple root crops using tissue culture; (ii) best agricultural management practices; (iii) sustainable agriculture; (iv) integrated pest management; (v) production, marketing, and processing systems for root crops, fruits, vegetables, and livestock; and (vi) farm management, decision-making skills.

Community Food Security: Access to nutritious and affordable healthy food is a challenge for communities outside of Koror and Airai, where there are no supermarkets. Small

[89] MAFE (2021) Triple Bottom Line Strategic Plan: People, Palau and Prosperity 2021-2024

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stores carry limited fresh foods, most purchased from larger stores in Koror and thus priced higher due to markups, taxes, and transportation. Availability of fresh food at local markets ("*makit*") varies: Ngatpang and Ngchesar have weekday daily markets, Ngaraard and Ngardmau have twice-monthly markets, and Ngeremlengui has a monthly market. Many families outside of Koror and Airai farm or fish to supplement their diets, although sales of such produce are more lucrative at stores or markets. Four percent of all farms are exclusively commercial, but 50% of all farms sell some portion of their products at the market.[90] Increasing food security is an immediate priority for Palau's communities.

Sedimentation from farms (and areas burned for farming) is a concern for water sources and downstream marine areas and leads to a loss of soil productivity. Changing weather patterns due to climate change (including drought/dry conditions followed by extreme rainfall and flooding) have exacerbated both human-influenced and natural sedimentation. Implementation of best practices in sedimentation and erosion control in agriculture, combined with land use planning and zoning to reduce future sedimentation is an immediate priority. Institutionalizing a program of erosion control, tree planting, or land cover rehabilitation (for which there is proof of concept) is also an immediate priority. Expanding food production by opening new leases on land and water is an immediate priority, and identification and extension services to ensure sustainable and culturally relevant practices, especially in traditional agro-forestry, agro-biodiversity, and taro production areas, is another immediate priority.

Rural communities are particularly reliant on natural resources for food security. These resources are being negatively impacted by climate change through saltwater inundation into farm areas, damage from storms to crops and reefs, increasing growth and activity of invasive species, flooding, and difficulty evolving with increasing rainfall, and increasing temperatures on land and sea and resulting in decreased productivity. Thus, safe, and climate-resilient expansion of agriculture is necessary and an immediate priority. Individual farmers need assistance, particularly with water infrastructure to increase the resilience of their farms. Management of invasive alien species (IAS), including control of fruit flies, coconut rhinoceros beetles, and invasive vines, and prevention of new introductions such as brown tree snakes and tilapia, are important for food security. Institutionalizing existing IAS programs of prevention, awareness, reporting, and control (for which there is also proof of concept) is also an immediate priority for food-productive areas.

Revitalization of taro patches in Koror's Rock Islands is a priority for both food security and cultural protection. Due to limited space, tabletop gardens and home gardens are the priority for Koror. These are supported by NGOs with assistance from BOA.

Key Issues

- Although there has been some renewed interest in farming, access to land continues to be difficult
- Land is a scarce commodity in Palau and land suitable for agriculture and development is even scarcer (Footnote 85). Only 14 percent of Palau's land area is considered optimal for agriculture, and competition is intense for the use of these same lands for other purposes – tourism, housing, and commercial development[91]
- There is a prevalence of poor soils and pests. However, there is potential to produce a range of crops and livestock under certain husbandry conditions

[90] NEPC. 2019. (2019 SOE from 2017 PALARIS Farm Survey.)

[91] Government of the United States, US Department of Agriculture (USDA) Natural Resources Conservation Service. 1983. *Soil Survey of the Islands of Palau, Republic of Palau*. Washington, DC.

- There is a lack of public market access (including digital) and middlemen although there are farm-to-supermarket sales. Imports are increasing and the overall demand for fresh produce greatly outstrips domestic supplies
- The National Development Bank of Palau provides lending to agriculture including a Farm Loan Program, but few loans have been approved
- There is an apparent conflict between conservation and production and the need for a planning mechanism to resolve the different preferences of society
- Government resources and facilities (including research, land use planning, and feasibility analysis) are insufficient
- Several agencies are involved in the sector with conflicting aims and objectives and a lack of cooperation between them has left past programs, policies, and strategies to be strongly directed by a range of intermittent donor assistance. Taking a more comprehensive food systems approach needs an even larger government-wide coordination mechanism.
- Palau has undergone a dietary transition that has contributed to a rising level of obesity and diet related NCDs, as its households increasingly depend upon cheaper imported food products high in salt and fat. NCDs are responsible for 78 percent of deaths in Palau, with evidence that NCD-related mortality and morbidity are rising according to a 2006-2009 survey of mortality[92]
- Commercial demand for agricultural produce has previously grown as the tourism industry expanded. Agricultural produce also retains importance in traditional social exchange. This demand is being met by imports while local production slowly increases. Demand for local food is greater than supply.
- The business environment can present difficulties for private investors
- The BOA with other partner agencies is training and encouraging farmers to increase production and commercialize farming operations
- The BOA has established a revolving fund scheme to charge minimal fees on its services for maintenance purposes
- Many traditional taro patches are in low-lying areas vulnerable to saltwater intrusion due to sea level rise (most traditional varieties of taro are not saltwater resistant).[93]

Strategy

The government aims to improve overall production and productivity in the sector through better management of Palau's natural resources, review, and update of the existing regulatory

[92] T. Martyn, T.S. Rogers, and M.A. Chin. 2014. *Linking Farmers to Markets: Realizing Opportunities for Locally Produced Food on Domestic and Tourist Markets in Palau*. Suva, Fiji: Food and Agriculture Organization (FAO) of the United Nations, Sub-regional Office for the Pacific Islands. https://palau-data.sprep.org/system/files/Linking%20farmers%20to%20markets%20in%20Palau%202014.pdf

[93] On average, 6% of taro production is lost each year due to saltwater intrusion. Environmental Response and Coordination (OERC) reports that local food production declined by 50% during the severe drought of 1997–1898. Despite efforts to rehabilitate taro patches and promote salt- and drought-resistant crops, climate change continues to pose challenges to food security. (SOE 2019) – extracted from the national voluntary SDG review. See: Del Rosario et al. 2015. *Title in Italics*. City of Publication; OERC. 2008. *Title in Italics*. City of Publication; Government of Palau. 2019. *Pathway to 2030: Progressing with Our Past Toward a Resilient, Sustainable, and Equitable Future; 1st Voluntary National Review on the SDGs*. Ngerulmud. https://sustainabledevelopment.un.org/content/documents/23606VNR_FINAL_21June2019_UN_Version.pdf. Quoted in SOE. 2019. *Title in Italics*. City of Publication.

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framework, and formulate a comprehensive policy framework to maintain sustainability throughout the agriculture sector.

Priority Programs and Projects (2023 to 2026)

- Comprehensive agriculture and food system planning and coordination and a comprehensive local food production and consumption campaign
- Expansion of agricultural extension and support services in livestock, fruit, and vegetables
- Expansion of climate-resilient and culturally and environmentally sustainable farms in communities and increasing production of root crops, vegetables, fruit, and livestock
- Provision of technical support to commercialize and diversify root crop processing
- Development of an online marketing mechanism
- Detailed surveys and data collection
- Expansion of laboratory and invasive species capabilities, with increasing invasive species control
- Implementation of best practices in erosion and sedimentation control for soil health.
- Expansion of nursery and compost facilities

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Agriculture Sector Performance Monitoring and Financing Plan Priorities

	Priority Performance Indicators, Baselines, and Targets	Data Sources and Reporting Mechanisms	Assumptions and Risks
National Impact	To help diversify the economy and improve food security by increasing agricultural production and food system employment opportunities.	USDA EconMap sector contribution to GDP	
Sector Outcomes	Doubled local food production to improve food security (accessibility, affordability, and availability) of locally produced livestock, root crops, vegetables, and fruits, with a minimal negative impact on the environment or culture (Measured by a decrease in volume of food imports from 80% to 60%).	MAFE BOA statistics USDA EconMap import statistics.	Demand for local food remains high, Local Foods can compete in cost.
Ministry Outputs	Comprehensive Food Systems Policy in place Double livestock piglet and chick production (2022-2026) (i) Piggery production 250/year to 400+; (ii) Poultry production 1200 chicks/year to 3000 chicks/year 7,500 square meters of seed bank operational Doubled production of compost (500m^3 in 2023 to 1,000m^3 facility) Increase vegetable seedling production by 6,000 seedlings/year to 12,000 per year (from 2023 to 2026) Increase land tillage per year by 25%: From 20 acres tilled per year in 2022 to 25 acres tilled per year in FY2027 to 100 acres of new cropland in 4 years. Increase fruit sapling production by 33%: From 1500 fruit trees/hedge species saplings in 2022 to 2,000/year; Decrease fruit fly damage on at least 50 fruit farms. 400 trained farmers/food processors (At least 4 training per year targeting 100 farmers per year) Expand root crop packing and processing from taro to include tapioca and breadfruit (production of flour, chips, new products, etc.) (1 crop, 1 product to 3 crops, at least 6 products) 16 State partnerships to produce, consume, or sell local foods (new agriculture zones, construction of markets, construction of roads/water, rehabilitation of productive landscapes, etc.) Data collection to track production and purchasing. Online marketing system operational with reduced food waste and stable supply and demand pricing Reduced area of land that is actively eroding and/or facing invasive species threats (Baseline 2019: 12,500 ha actively eroding; GEF6 Project Document).	MAFE BOA annual reports	Risk: Targeted number of farmers cannot be reached. Assumption: Costs remain stable Risk: Cannot hire the number of extension officers needed

Ministry Inputs and Activities ($) Item	FY24	FY 25	FY26	FY27	Assumptions and Risks
I. Annual Recurrent Budget [a]					All programs are well coordinated with other Ministries, NGOs, and the private sector as relevant.
I.1. Annual BOA recurrent budget – local	610,000	625,000	640,000	660,000	
I. 2. Grants (GEF6, Japan bilateral, FAO)	150,000	0	0	0	
II. PDP Priority Recurrent Programs					
II.1 Food Systems policy, coordination, implementation, data	70,000	45,000	45,000	45,000	
II.2 Livestock operations, extension, supplies, etc.	115,000	135,000	155,000	175,000	
II.3 Livestock feed manufacturing	Covered by cost-recovery				
II.4 Horticulture extension, operations, equipment, supplies	126,000	143,000	148,000	121,000	
II.5 Community: Food Security, Soil best practices, IAS	1,000,000	1,000,000	1,000,000	1,000,000	
II.6 Organic Certification Program operational (Funded through NGO partners)	50,000	50,000	50,000	50,000	
II.7 Integrated Local Food and Consumption Campaign (State Gvts)	100,000	100,000	100,000	100,000	
II.8 Research and Development (Include value added sector assessment)	75,000	75,000	75,000	75,000	
III. PDP Priority Capital Needs					
III.1 Piggery, poultry, and food processing facilities (Provided by ICDF and ADB)	100,000	0	0	0	
III.2 Online farmer marketing platform (w IT services)	65,000	0	0	0	
III.3 Double capacity of a compost facility	50,000	0	0	0	
III.4 Expand nursery/greenhouse and rainwater harvesting system	0	100,000	0	0	
III.5 Equipment – Tractors/trailers/trucks/tillers/vehicles	180,000	90,000	60,000	30,000	
III.6 Community: Personal infrastructure at $2000/person	200,000	200,000	200,000	200,000	
TOTAL	**2.89m**	**2.56m**	**2.47m**	**2.45m**	

ADB: Asian Development Bank, BOA: Bureau of Agriculture, FAO: Food and Agriculture Organization of the United Nations, GEF6: Global Environment Facility ICDF: International Cooperation and Development Fund (Taiwan), MAFE: Ministry of Agriculture, Fisheries and Environment, NGO: non-government organizations, PCC-CRE: Palau Community College Cooperative Research and Extension, TTM = Taiwan Technical Mission.

** Demand for seedlings and rentals is higher than supply – cannot keep up with demand by farmers.

a) Other budgets are from TTM and PCC-CRE

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EDUCATION

Goal

Our students will be successful in Palauan society and the world.

Status and Trends

Overview: There are four public institutions responsible for the education of Palau's children and youth. Early childhood education (ages 3-5) is provided by Palau Head Start, a program of the non-profit, Palau Community Action Agency. Primary and secondary education (K-12) is provided by the Ministry of Education. Tertiary education on-island is provided by Palau Community College (PCC) while the Palau Scholarship Board provides financial support to students who meet support criteria who are pursuing tertiary education off-island. In addition, to public institutions, there is one non-public preschool, two non-public elementary schools, and four non-public high schools all operated by religious institutions.

Early Childhood: The Head Start program has provided early childhood education in Palau for 56 years. The program operates 10 centers serving 350 students ages 3-5 years (53% of age-eligible children). Priority for places goes to children from low-income households and children with disabilities and other special needs. The program includes education, health, family, and transportation support with a focus on building children's social and emotional competency for school readiness. Funding is a mix of U.S. Federal grants (75%) and local appropriations (25%). The Head Start goal is that every student becomes a confident, competent learner ready for elementary school.

Ministry of Education K-12: There are 18 public schools, of which 17 are elementary schools (grades K 1 to 8)[94] and one is a high school (grades 9 to 10). The schools are spread throughout the Republic, from Kayangel State in the extreme north to Hatohobei State in the extreme south. For the school year 2020-2021, there were 1,712 students enrolled in public elementary schools and 547 students enrolled at Palau High School. In total, there are 2,259 students enrolled in public schools. In addition, 421 students were enrolled in non-public elementary schools and 358 were enrolled in non-public high schools. While non-public schools are funded primarily by student tuition, the government does provide grants to non-public schools from each year's budget to help offset their costs.

Palau has achieved universal access to education in grades 1-12 and now strives to improve the quality of education. School enrollment is constant and school participation and graduation rates are high. The average graduation rate for the period 2010-2019 is 88.3%. Teacher-to-pupil ratios are considered adequate. Student enrollment in public schools, however, has steadily declined in the past ten years due to low birth rates and out-migration.

Of the 17 public elementary schools, 12 enroll fewer than 100 students. The operational costs for small schools are quite high. Consequently, the MOE consolidated three elementary schools in eastern Babeldaob into one school in 2011 and plans to consolidate the remaining six public elementary schools in northern and western Babeldaob into two schools. This strategy will

[94] Kindergarten was introduced by MOE on a pilot basis in the SY2022-2023. It will become universal and mandatory for 5-year-olds in SY2023-2024.

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also address the need to relocate three of these elementary schools to higher ground because of climate change and sea level rise.

Palau Community College: Palau's only local higher education institution is the public Palau Community College (PCC). For the fall semester 2022, PCC enrolled 525 students of which 412 (90.5%) were Palauan and 321 (61.1%) were full-time.[95] The graduation rate at PCC is 27.0% with a transfer out rate of 9.0%.[96] These rates are in line with those for community colleges across the United States.[97]

Other Tertiary Education: The Palau National Scholarship Board (PNSB) was established to provide scholarships to **Palauan** citizens pursuing higher education in colleges and universities abroad taking into consideration the national objectives and priorities of the Republic of Palau.[98] By agreement, the PNSB also administers various non-Palau scholarship programs offered by private entities and overseas development partners.

Current Initiatives

Early Childhood: In 2023**,** Head Start is undertaking a community assessment to guide future program directions. Key issues are harmonizing Head Start with the Ministry of Education specific to year-round schooling and mandatory kindergarten for 5-years olds scheduled to begin in SY2023-2024. Head Start is further exploring community support for and the feasibility of introducing Early Head Start which provides early learning for children 1-2 years of age.

Ministry of Education: Currently, the government is focused on improving the quality of teaching and learning across all public schools. Substantial funding support has been invested to modernize the Palau education system by implementing the following initiatives:

- Acquiring new textbooks
- Establishing online learning programs
- Supporting teacher professional development and continuing education
- Reviewing and updating the school curriculum
- Implementing year-round school year
- Implementing an automated Student Information System
- Accrediting all public schools through the Western Association of Schools and Colleges (WASC)
- Gaining membership of the Western Interstate Commission for Higher Education (WICHE)
- Implementing special education, adult education, and career and technical education programs with federal funding support
- Providing daily student busing, breakfast, and lunch
- Upgrading school facilities

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[95] UNIVSTATS. 2023. *PCC student population*. Palau Community College Student Population and Demographics (univstats.com)
[96] UNIVSTATS. 2023. *PCC outcomes*. Palau Community College Graduation Rates (univstats.com)
[97] Juszkiewicz, Jolenta. 2020. *Trends in community college enrollment and completion data*, Issue 6. American Association of Community College. Final_CC-Enrollment-2020_730_1.pdf (nche.edu)
[98] The PNSB was established by Title 22 of the Palau National Code.

Palau Community College: PCC is exploring options for attracting more students from the Federated States of Micronesia (FSM) and the Republic of the Marshall Islands (RMI) by providing travel scholarships, financial aid packages, and a rich educational and cultural experience. PCC is also exploring options to support online or hybrid bachelor's and master's degree programs that will boost enrollment, strengthen partnerships with U.S. Institutions of Higher Education, and deliver a more diverse range of educational opportunities to Palauans.

Palau National Scholarship Board: PNSB undertakes initiatives to help Palauan students enroll and succeed in post-secondary studies. Initiatives include high school outreach, assistance with school search, and support for the application process. To encourage students to return to Palau on graduation, PNSB has introduced a paid summer internship open to students in their sophomore and junior years of college with the intent of familiarizing them with career opportunities at home.

Key Issues

Early Childhood: Key issues for the Head Start program are (i) attracting and retaining qualified teachers, (ii) demographic changes due to declining numbers of age-eligible children, especially in rural communities,[99] and (iii) harmonizing programs with changes in public elementary schools.

Ministry of Education: To further improve access and inclusion, there was a past proposal to build a second public high school in Babeldaob. This proposal recently gained traction through an executive order issued by the Office of the President creating a task force to initiate work on establishing a K-12 public school in Babeldaob. Since 2009, daily student busing is provided to transport high school students from Babeldaob to and from Palau High School in Koror.

Most school buildings still in use are over 50 years old. While older school buildings at Koror Elementary School and Palau High School are still structurally sound, extensive refurbishment is needed. Additionally, the school buildings that are still in use require constant maintenance with a few starting to show structural defects. Maintenance is a major issue, especially with limited resources. The typical maintenance approach has been to carry out minor repairs throughout the year while outsourcing major repairs whenever funding becomes available.

Key issues include (i) out-migration and "brain drain" as young Palauans seek opportunities overseas, (ii) erosion of Palauan values, language, and culture, (iii) recruitment and retention of qualified teachers, (iv) continued consolidation of schools due to declining enrollment, and (v) repair and maintenance of school buildings.

Palau Community College: Key issues are (i) attracting and retaining highly qualified faculty and (ii) increasing enrollment levels.

Palau National Scholarship Board: Key issues are (i) retaining students in their course of study while overseas and (ii) incentivizing students to return to work in Palau on graduation.

Strategy

[99] Under U.S. Federal funding guidelines, a center must enroll at least 10 children to receive operating support.

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For early childhood, Head Start is undertaking a community assessment to guide future directions including the level of community support for Early Head Start. For grades 1-12, the Ministry of Education intends to improve the appropriateness, staffing, management, learning environment, technology integration, monitoring, and overall productivity of education by increasing investment and exploring areas for systemic reforms and transformation. For tertiary education, PCC plans to increase salaries and benefits paid to highly qualified staff and increase student enrollment by positioning itself as the tertiary institution of choice for students from the FSM and RMI. The PNSB will continue to encourage and support students in preparing for post-secondary education abroad while incentivizing their return to Palau upon graduation.

Priority Programs and Projects (2023 to 2026)

Early Childhood

- Introduce Early Head Start to provide early learning for children aged 1-2 years.

Grades 1-12

- Continued recurrent expenditure of $9.4 million per annum to fund teachers, administration, and other staffing, staff running costs, school and headquarter running costs, maintenance, and repairs.
- Teacher training.
- Conduct curriculum review and revision.
- Strengthen Palauan studies (teaching of history, values, language, and culture).
- Integrate financial literacy across all content areas.
- Formalize parental engagement program.
- Develop performance metrics and reporting guidelines.
- Explore school consolidation.
- Upgrade school facilities including repair and replacement of buildings.
- School re-equipping.

Palau Community College

- Improve salary and benefits packages for highly qualified faculty.
- Increase enrollment of students from the FSM and RMI by creating incentive packages (e.g., travel scholarships and financial aid packages) that target their specific needs.
- Provide funding to support the development of online/hybrid bachelor's and master's degree programs so that critical partnerships with institutes of higher education in the U.S. can be further developed.

Priority Programs and Projects, K-12 (Post Plan, after 2026)

- Improve teacher and school principal remuneration and benefits.
- Establish a school leadership training program.
- Increase learning pathways including the introduction of an Advance Placement option.
- Improve instructional strategies to meet the needs of diverse learners.
- Institutionalize remote/online learning programs.
- Upgrade support services.

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Education Sector Performance Monitoring and Financing Plan Priorities

	Priority Performance Indicators, Baselines and Targets	Data Sources and Reporting Mechanisms	Assumptions and Risks
National Impact	Every student completes school as a confident citizen with the knowledge, skills, attitudes, and values to participate and contribute to the national and international society and economy as evidenced by an increase in Palauans employed in Palau from 8,780 in 2020 to 9,000 in 2026	Civil Service Pension Fund Social Security records	
Sector Outcomes	**Early Childhood**: Children enter elementary schools as confident, competent learners. **Grades 1-12**: Inclusive and quality education and training services are provided for all students as evidenced by (i) student benchmarks in literacy and numeracy increasing by 15 percentile points over 2022 benchmarks (from 22% to 47% for English language skills by 2026), (ii) student engagement as measured by graduation and drop-out rates of 12th -grade students (2026) as compared with SIS data (2022) and of PCC students. **Tertiary**: Vocational and academic enrollment and graduation in tertiary education at PCC and elsewhere increased as measured in 2026 compared with 2022.	Annual MOE report, Iowa Test of Basic Skills results, Access reports specifically giving the needs of ELL, annual retention + transfer statistics for PCC and students abroad from the Scholarship Board	Economic growth increases demand for educated Palauans to work in Palau. Labor policy will provide increasingly attractive salary and benefits for Palauans, especially college graduates
Ministry Outputs	**Head Start:** Teachers with degrees in early childhood education will increase from 75% (2022) to 100% (2028). Early Head Start will serve children 1-2 years old. **Ministry of Education:** By 2028, 100% of teachers hold at least a bachelor's degree (compared to 25% in 2022). Strengthen MOE and parental partnerships as measured using parent portals for student grades, monthly parent meetings with MOE leadership, and resulting survey results. A baseline of 5 meetings per school and a target of 10 meetings per school in 2026. Improve educational curriculum by utilizing technology to enable more individualized instruction in all academic core classes in all grade levels. Implement the systems of CAL in all English and Math classes in all grades from K-12. School buildings are repaired or replaced to provide an optimum learning environment. By 2026 construct 4 new elementary schools to consolidate and replace 8 existing elementary schools on Babeldaob. Additionally, 4 schools (3 elementary and 1 high school in Koror) are repaired until they can be replaced with new buildings. **Palau Community College** Improved faculty remuneration and benefits. Improved scholarship packages offered to FSM and RMI students. New hybrid bachelor and master's programs introduced in partnership with U.S. Universities.	MOE Annual report, Parental survey reports, Student results on the Iowa Test of Basic Skills, MOE Annual Report Faculty retention rate; enrollment by FSM/RMI students; enrollment in hybrid programs	Political, parental, and other societal support for better education.

Ministry or Agency Inputs and Activities ($) Item	FY 24	FY 25	FY 26	FY27	Assumptions and Risks
I. Annual Recurrent Budget					Palau will continue to be eligible for Head Start Federal funds under new compact. There is active engagement and support from all private education entities and from parents.
I.1 Annual ECE recurrent budget – Federal	1.9m	1.9m	1.9m	1.9m	
I.2 Annual Palauan Government recurrent budget	475k	475k	475k	475k	
I.3 Annual MOE K-12 Public Schools recurrent budget	9.27m	10.3m	11m	11.8m	
I.4 Annual K-12 Private Schools recurrent budget	947k	975k	1m	1.03m	
I.5 Annual K-12 Public Recurrent Grant Funding	4m	5m	5.5m	5.5m	
I.6 Annual PCC recurrent budget	2.62m	2.69m	2.78m	2.86m	
I.7 Annual PNSB recurrent budget	2m	2.06m	2.12m	2.18m	
II. PDP Priority Recurrent Programs					
II.1 Early Head Start	0	516k	365k	365k	
II.2 K-12 Public: Faculty development	1.25m	1.25m	1.25m	1.25m	
II.3 K-12 Public: Central management	25k	25k	25k	45k	
II.4 K-12 Public: Improved curriculum	825k	950k	1.25m	1.5m	
II.5 K-12 Public School repair & maintenance	1.75m	1.3m	1m	850k	
II.6 K-12 Public MOE Parent Program	0	35k	38k	40k	
II.7 K-12 Public Feasibility & planning for new Advanced Placement	100k	0	0	0	
II.8 PCC Salary & Benefit Package (add for highly qualified staff)	183k	183k	183k	183k	
II.9 PCC To attract RMI & FSM students	124k	124k	124k	124k	
II.10 PCC Hybrid Program Development (Bachelor & Master levels)	1.67m	1.67m	1.67m	1.67m	
III. PDP Priority Capital Programs					
III.1 K-12 Public - New construction	5m	9m	12m	12m	
III.2 8-unit Apartment Building in Melekeok for Financial and Leadership Programs	800k	5k	5k	5k	
TOTAL DEVELOPMENT PROJECTS (PDP Recurrent + PDP Capital)	**32.94m**	**38.46m**	**42.69m**	**43.77m**	

ECE: Early Childhood Education, ELL: English Language Learners, FSM: Federated States of Micronesia, MOE: Ministry of Education, PCC: Palau Community College, RMI: Republic of the Marshall Islands, US: United States

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ENERGY

Goal

The goal is to provide, protect, and maintain energy systems on an efficient and equitable basis and to continue to improve access, standards, reliability, and value for money. This incorporates Palau's aim to generate at least 45% of its energy needs from renewables by 2025.

Status and Trends

The Palau Energy and Water Administration (PEWA) a government regulatory sector within the Ministry of Finance, in collaboration with the Palau Public Utilities Corporation (PPUC), a corporation solely owned by the government, is responsible for the management, implementation, and maintenance of the country's energy systems. PEWA is the regulatory authority for energy production, purchase, and sale. PPUC is responsible for all remaining aspects of electricity generation, transmission, and distribution, from project planning to implementation, asset management, and customer service functions. PEWA is also involved in the selection of energy projects aimed at achieving the objectives of the Palau National Energy Policy (PNEP) adopted in 2010. PPUC currently has 293 employees, and its operations are organized into eight divisions: (i) power, (ii) human resources, (iii) water and wastewater, (iv) finance and accounting, (v) corporate services, (vi) projects, (vii) customer service, and (viii) safety.

The energy infrastructure in Palau is not in a good position to continue meeting overall demand in the medium term. It is essential that the existing statutory requirements and other obligations are observed and that the fundamental risks associated with climate obligations continue to be monitored. PPUC's investment program references the maintenance and development of the future of electricity, including the implementation of renewable electricity. Government resources and facilities (including research, land use planning, and feasibility analysis) are insufficient.

The price of imported diesel fuel and electricity generation costs are subject to large fluctuations. Volatile electricity prices not only pose a hardship to residents but also present a risk to sustaining steady economic growth. The cost of PV solar generating equipment has fallen significantly over the past ten years, making PV solar generation a competitive alternative to diesel generation. It is important to note that as the number of renewable energy installations increases, the ratio of asynchronous power sources will increase, and synchronous power sources decrease. It will become more difficult to maintain power system reliability and various issues such as voltage and synchronization force may occur. This will require a backup energy source to provide fast-speed frequency and voltage regulation, either in the form of battery storage and, or diesel generation.

In recent years, several roof-top PV solar installations have been commissioned, with a total generating capacity of about 2.8 MW (peak). Furthermore, there are calls for investment in the renewable energy sector, in recognition of Palau's potential as an energy exporter, including offshore wind power plants and the subsequent requirement of adoption of technologies that are new to the Palau electricity grid, as well as the upgrading, reinforcement, and construction of transmission lines. Offshore PV solar plant installations floating on the ocean are currently being tested. The development of offshore energy has the potential to deliver sustainable energy resources and the development of offshore wind is highlighted in PPUC's investment plan.

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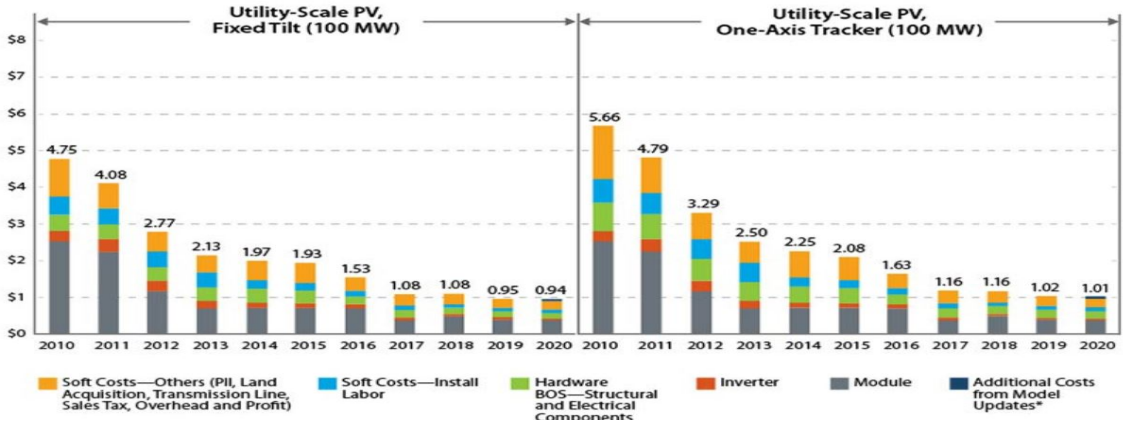
There are several weaknesses in the existing power grid and mitigating these will require major investments to improve security and reliability. The transmission network will need to be extended to solar and wind power plants and reinforced to accept power from the proposed IPP-owned power plants. The energy losses on the distribution system are excessively high and inaccurate metering and, or by-passed meters are expected to be the main cause of these losses. Automated revenue meters (Smart Meters) should be the most effective and cost-efficient solution for reducing energy pilferage and lowering operating costs.

Electricity generation: The main sources of electricity generation in Palau are two diesel generating stations: Malakal Power Station, with a rated plant output of about 24 MW, located in Koror; and Aimeliik Power Station, with a rated plant output of about 10 MW, located at Babeldaob island.[100] Most of the diesel generators at Malakal Power Station are more than 15 years old and thus approaching the end of their useful life. In recent years they have been unable to reach the rated plant output, so the total real generating capacity of the two plants is approximately 20 megawatts (MW). Since 2012, the government has commissioned several roof-top photovoltaic solar installations, with a total generating capacity of about 2.8 MW (peak). As of mid-2021, the peak loading on the electricity grid was about 12 MW, although it had previously reached a high of 16 MW.

Peak electricity demand from the existing customer base is expected to remain flat until 2030. However, peak demand on the grid is expected to increase significantly from the 2021 level, reaching approximately 20 MW, because new commercial customers will be connecting to the grid, reflecting the expected growth in the tourism industry. With fluctuations in the price of imported diesel fuel, electricity generation costs have been subject to large swings, ranging from a low of $0.22 per kilowatt-hour to a high of $0.38 per kilowatt-hour since 2010. As shown in Figure 7, the cost of photovoltaic solar-generating equipment has come down significantly since 2011, making photovoltaic solar generation a competitive alternative to diesel generation.[101]

Figure 7: Photovoltaic Solar Cost Trends, 2010–2018 ($ per watt DC)



BOS = balance of system, DC = direct current, MW = megawatt, PII = permitting, inspection and interconnection, PV = photovoltaic.
Note: The prices in 2020-2018 dollars.
Source: National Renewable Energy Laboratory, "Solar Installed System Cost Analysis" Denver, Colorado, USA, pp.41

[100] Japan International Cooperation Agency (JICA). 2017. *The Project for Study on Upgrading and Maintenance Improvement Of National Power Grid In The Republic Of Palau*.

[101] "Solar Installed System Cost Analysis" NREL, https://www.nrel.gov/analysis/solar-installed-system-cost.html

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PPUC could contract out a large fraction of the electricity generation to independent power producers (IPPs) through long-term power purchase contracts, at prices significantly lower than the cost of electricity generation through a diesel generating plant.

Despite the reduction in solar plant prices, the energy yield rate of PV solar plants continues to be low. For the sake of comparison, a 250kW diesel generator, capable of generating 1 GWh of energy during a year (45% load factor) requires approximately 160 sq ft. of land for installation. A solar farm capable of generating the same amount of electricity would require approximately 3 to 4 acres of land, depending upon the design selected.[102] Because of the scarcity of land, PV solar plant installations floating on the ocean are currently being tested as pilot projects in several countries.[103] These installations are expected to provide a cost-effective solution to not only reduce the long-term electricity costs in Palau but also allow the nation to meet its climate change commitment required in the Paris Agreement on Climate Change[104]. Aside from PV solar, wind turbines owned and operated by IPPs and installed on hilltops are also expected to provide a viable and cost-efficient green energy alternative to diesel generation.

The momentary generation output from both wind and solar plants is highly variable and for stable operation, they would require a backup energy source to provide fast-speed frequency and voltage regulation, either in the form of battery storage and, or diesel generation. The analysis provided in Figure 7, indicates that the existing grid in Palau can accept renewable generation connections of up to 40% of its capacity, without losing stability. For larger penetration of renewable energy sources, storage batteries would be required to maintain system stability.

Electricity generation from renewables can be contracted out to IPPs, and therefore should not require any capital investment. However, a part of the diesel generating plant, required as a backup energy source, will still require investment to replace generators as they reach the end of their service life.

Electricity transmission: The transmission system operating at 34.5 kV provides a tie link between the two generating stations. Transmission lines also provide connections to a total of twelve 34.5/13.8 kV step-down stations. The total length of 34.5 kV transmission lines is approximately 80 km and these are constructed in the form of single circuit lines, with 150 mm^2 all aluminum conductor (AAC), and are typically supported on concrete poles. There are fourteen 34.5/13.8 kV step-down stations supplied from the transmission network, which supply 13.8 kV distribution feeders.

There are a number of weaknesses in the existing transmission network and mitigating these would require major investments to improve supply system security and reliability:

- The Aimeliik and Malakal diesel generating plants are connected through a single circuit 34.5 kV transmission line and any outages on this line result in the electrical separation of the two plants affecting grid stability. A second 34.5 kV circuit is required between these two generating stations.

[102] "Land-Use Requirements for Solar Power Plants in the United States" NREL, https://www.nrel.gov/docs/fy13osti/56290.pdf

[103] "A New Floating Solar Farm Shows That Renewables Can Be Easy" https://www.forbes.com/sites/emanuelabarbiroglio/2019/11/07/a-new-floating-solar-farm-shows-that-renewables-can-be-easy/?sh=118e4a4b7930

[104] https://unfccc.int/process-and-meetings/the-paris-agreement

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- For protection and control, circuit breakers are provided only at the two generating stations, with no automated switching or controls at step-down stations, and this results in poor reliability. The 34.5/13.8 kV stations have reached a service life of 35 years and are approaching the end of their useful life and will require replacement during the next 10 years. When the stations are rebuilt, additional protection and control devices should be included in their design.
- The transmission network will need to be extended to the selected location of solar and wind power plants and reinforced to accept power from the proposed IPP-owned power plants.

Electricity distribution: The 13.8kV distribution lines begin at each of the 34.5/13.8 kV stations and supply 1-phase and 3-phase pole-mounted or pad-mounted distribution transformers. The distribution feeders in Palau typically employ 336 kcmil AAC conductors on trunk lines and AWG #2 or #4 copper conductors on branch lines. The total length of the 13.8 kV network is approximately 180 km.

Based on the system condition assessment documented in the JICA report (footnote 100), the distribution lines experience frequent power interruptions. This is more serious in rural areas. Poor line design with inadequate protection and control devices, lack of maintenance, and poor road access to reach the distribution lines are the key reasons for poor reliability. The lines pass through heavily treed areas and when tree trimming does not take place at required intervals, line contact with tree limbs results in power interruptions.

Capital investments will be required over the next ten years to reconstruct the aged distribution lines, relocate lines to the shoulders of paved roads, and apply automated reclosers. All these investments would improve reliability. The 13.8 kV lines will also require some minor extensions to allow connection of small-scale generation, including a land-fill site generation facility.

Services and Retail Meters: Table 17 shows the number of electricity customers served by PPUC. About 65% of the customers are equipped with pre-paid meters and the remaining customers use conventional meters.

Table 17: Palau Public Utilities Corporation—Electricity Customers, 2023

Conventional Meters: 3,684
Prepaid Meters:
- Active: 3,411
- Total Prepaid: 4,798

Source: Palau Public Utilities Corporation.

Organization and Human Resources: PPUC corporate plans need to be linked with job descriptions and performance assessments. The sector has insufficient finance staff. The overarching challenge is to unify the organization within a comprehensive human resources management framework and discontinue the use of public service practices. There is also a need to expand office accommodation, possibly on a new site.

Policy: Policy priorities are (i) tariff reforms to introduce market-driven incentives to enhance PPUC's sustainability, and (ii) leveraging private investments to meet the country's renewable energy target. The government has approved PPUC's financial recovery plan, which aims to restore liquidity and profitability. The plan also aims to enhance PPUC's financial

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management, reform its tariffs, and scale up renewable energy generation. The National Energy Master Plan, 2019 emphasizes efficiency and the transition from diesel generation to renewable energy through the introduction of long-term concessions and power purchase agreements (PPAs) to support private investments in renewable energy. While PPAs help hedge developers' risks in Palau, the financial distress of the PPUC is a key source of the government's financial risks. PPUC's underperformance and liquidity deficit adversely impact the country's fiscal deficit, given that the government's contingent liability associated with PPA subsidies to keep the PPUC solvent costs about 1% of GDP per year.

Strategy

The energy sector will move to financial and economic self-sufficiency over the PDP period through (i) gradually increasing electricity tariffs to secure PPUC financial solvency, and (ii) increasing the supply of lower-cost energy through the installation of renewable energies.

Priority Programs and Projects (2023 to 2026)

- **The replacement of the diesel generating plant at the end of its service life** with the larger generators requiring overhaul over the next 5 years.
    - **Ene-5 Replacement and Rehabilitation of existing diesel generating stations**: Since all diesel generation plants in the Koror-Babeldaob power system have not undergone proper and timely maintenance, there is a risk that a breakdown of the plants might occur at any time. The life of active generation plants in Malakal (Niigata 14 and 15) and Aimeliik (Mitsubishi 5 and 6) can be extended with proper maintenance. Ene-5 is not deemed an investment, but it should be included in planned maintenance activities.[6] The estimated cost is about $8,000,000 with an estimated annual maintenance cost of $160,000.
- **Upgrade transmission network** (Table 18). The total estimated cost is $18.2 million to $19 million with an estimated annual maintenance cost of $364,000 (see table 18).
    - **Ene-2 34.5 kV line construction to connect IPPs**: Must be implemented, otherwise, Solar IPP cannot be operational even though the PV power plant is constructed.
    - **Ene-1 34.5 kV line construction to improve system stability**: Seems to be more important than **Ene-4 "Reconstruction of 13.8 kV lines**" because currently there is only one circuit 34.5kV transmission line between Koror and Babeldaob and any fault on the line may cause total system blackout. When a large-scale solar IPP starts operation in Babeldaob, the main power source will be Babeldaob while Koror is still a major load center. The importance of the 34.5 kV link between Koror and Babeldaob increases along with Palau's policy to promote renewable energy generation.
- **Battery Energy Storage Systems and Energy Management System installed.** The project will install a minimum 15 MW/15 MWh BESS, which will enable the grid to accommodate current solar PV penetration. The BESS will also provide grid services to Koror- Babeldaob grid. The EMS will equip PPUC with an operational tool to efficiently manage generation assets (PV, diesel generation sets, and BESS) being more responsive to intermittent power supply, and variable demand and supporting climate resistance in a secure mode. Both systems are recommended to be located at the Malakal substation as sufficient space in this PPUC substation is available.
- **Grid protection system upgraded.** Protection systems to reduce the frequent blackouts of the grid system will be installed. The protection systems will contribute to the stability

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and long-term sustainability of Palau's transmission and distribution network. System upgrades will also increase resilience to severe weather events and the impacts of climate change.

- **Enhance Electric Vehicle (EV) charging infrastructure.** Palau plans to increase solar power production up to 52 gigawatt-hour (GWh) – 55 GWh per year. The EV charging stations will create daytime power consumption to match solar power production. They can also function as load-shifting batteries by providing power to the EVs during the daytime. EVs can be an instrument of grid resilience in disaster-prone regions through V2G capabilities as they can provide a portable source of stored electricity and offer emergency backup power when the grid is compromised by a disaster. Three enhanced EV charging infrastructures will be deployed. Each of them consists of 6 EV charges, 15 kWp of solar PV, and 72 kWh of electric battery storage. Additionally, up to 20 individual EV chargers will be installed.
- **Capacity-building support provided.** PPUC and other stakeholders have limited capacity to manage the smart grid including SCADA/EMS, BESS, and EV charging infrastructure. Their capacity to manage new power systems and electric mobility infrastructure will be improved.

Table 18: Upgrade of Transmission Network

Transmission Line			
NIIP Project #	**Project Name**	**Est. Capital Cost**	**Est. Annual Maintenance Cost**
Ene-2	34.5kV line construction to connect IPPs	$3.6M	$72,000
Ene-1	34.5kV line construction to improve system stability	$9M	$180,000
Ene-4	Reconstruction of 13.8kV lines	$5.6M	$112,000
TOTAL		**$18.2M**	**$364,000**

- **New distribution lines**. The estimated cost is $1.75 million to $2 million with an estimated annual maintenance cost of $35,000.
  - Ene-3 Rehabilitation of 34.5/13.8 kV Stations: Rehabilitate all existing stations and provide 34.5 kV circuit breakers.
- **New smart meters**. The estimated cost is $1.7 million with an estimated annual maintenance cost of $34,000.
  - Ene-6 Smart metering: Replace existing meters with smart meters.
- **New office accommodation** at an estimated cost of $5,000,000, this amount includes possible land acquisition and construction. In future fiscal years, PPUC will also consider the feasibility of replacing existing overhead lines with underground or heavily insulated transmission and distribution power lines, particularly in urban areas where it is difficult to maintain adequate clearances from structures.
- **Sustainable Investment Program** (ADB's TA)[105]

Priority Projects Beyond the Plan Period

[105] PPUC Sustainable Investment Plan (February 2022)

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Transitioning to Renewables: For power generation, transmission, and distribution as well as renewable energy and energy efficiency, Palau has a goal of being 100% Renewable by 2035. This would mean significant work on the grid as well as for the PPUC generation department.

To meet PPUC's KB Grid power system objectives, the grid must be able to support safely and reliably very high (up to 100%) levels of inverter-based generation. If this is not achieved in a sustainable way, the cost of meeting the second target of Palau's 2025 RET (the balance of 45% REF) will be increased dramatically. Inverter-based generation (such as PV and batteries) behaves quite differently from synchronous generation, such as DGs. These differences include: (i) Inverter-based generation can be programmed to respond extremely quickly and accurately, (ii) Inverter-based generation lacks the physical inertia of physically rotating synchronous machines, and (iii) Inverters have a much lower fault current capacity than synchronous machines. These differences mean that grids with high instantaneous levels of inverter-based generation need to be managed differently from those that can always rely on synchronous generation.

Risk Management: During the transition to high instantaneous levels of inverter-based generation, the following risks need to be managed: (i) Older protection systems that rely on high fault currents to operate may not function properly, (ii) The loss of physical inertia (from synchronous machines) may lead to poor system stability if not replaced by some form of fast frequency response and, or synthetic inertia, and (iii) A more geographically and technologically diverse system demands a greater level of visibility, control, and flexibility in order to operate most effectively. Effective management of these risks is essential if PPUC is to achieve its KB Grid power system objectives.

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Energy Performance Monitoring and Financing Plan Priorities

	Performance Indicators, Baselines, and Targets	Data Sources and Reporting Mechanisms	Assumptions and Risks
National Impact	More productive society and economy as reflected in increased GDP per capita.	USDA EconMap Report and IMF Article IV	
Sector Outcome	Financially and economically self-sustainable energy supply with at least 45% of the country's energy needs provided by renewables by 2025.	PPUC Corporate Plan 2023–2025	Need other social and economic investments.
Outputs	1. Tariff increases provide for viable operations by FY25. 2. Private investments in renewable energy with 45% of total energy supplied by renewables by FY25. 3. Replacement of the diesel-generating plant in FY24. 4. Upgraded transmission network by FY24. 5. New distribution lines completed by FY26. 6. New smart meters installed by FY24.	PPUC Corporate Plan 2023-2025	Citizens pay higher energy tariffs

PPUC Inputs and Activities ($) Item	FY24	FY25	FY26	FY27	Assumptions and Risks
I. Annual PPUC recurrent budget – all-local	28m	28m	29m	30m	Legislature support for increased tariffs to enable a sustainable system. The private Sector continues to invest in renewables. The land is available for new distribution lines. Required technical, social, environmental, and economic feasibility studies prove that proposed investments are viable.
II. PDP Priority Recurrent Programs					
II.1 Feasibility study of replacing existing overhead lines with underground in urban areas	300,000	350,000	400,000	425,000	
II.2 Establish grid code.	200,000	100,000	100,000	100,000	
II.3 Capacity development PPUC personnel on grid operation	900,000	1m	1.5m	1.9m	
III. PDP Priority Capital Programs					
III.1 Replacement and Rehabilitation of existing diesel generating stations	8m	0	0	0	
III.2 Upgrade transmission network.	18.2m	0	0	0	
III.3 New Distribution Lines	1.75m	0	0	0	
III.4 New smart meters.	1.7m	0	0	0	
III.5 PPUC New office accommodation.	5m	0	0	0	
III.6 Sustainable investment program for power generation, transmission, and distribution	5.8m	14.4m	10m	10m	
III.7 Upgrade of protection system	1.7m	0	0	0	
III.8 Expansion of fiber-optic cable	2m	0	0	0	
III.9 Update SCADA system	2m	0	0	0	
III.10 Installation of high-speed data recorders for fault analysis	150,000	0	0	0	
III.11 Installation of a grid forming battery near Koror	21m	0	0	0	
III.12 Grid Controller	200,000	0	0	0	
TOTAL	**96.9m**	**43.85m**	**41.0m**	**42.42m**	

GDP: Gross Domestic Product; IMF: International Monetary Fund; M: million; PPUC: Palau Public Utilities Corporation; SCADA: Supervisory Control and Data Acquisition; USDA: United States Department of Agriculture

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ENVIRONMENT

Goal

A Palau that is enriched by a healthy environment that sustains our culture and livelihoods, expands our economy, and strengthens the resilience of our island ecosystems and communities.[106]

Status and Trends

Forests: The most updated vegetation map for Palau is for Babeldaob with land cover for 2014 (Greenberg et al. 2020)[107]. The data indicates that forests covered 73% of Babeldaob followed by grassland and savanna (14%) mangrove forests (11%), marsh (2%), and the built-up community (1%). Land and vegetation change in Babeldaob between 1976 and 2014 showed an increase in forests (5.5%,) and a decrease in savanna and grasslands (-5%,) a decrease in mangroves (-0.3%), an increase in marsh (0.2%), and a decrease in urban areas (-0.5%).

Mangroves are the second largest forest type in Palau covering 48.5 km2 or 12% of all vegetation and are essential for food security and as protection from multiple impacts of climate change. Ongoing research to quantify the values of mangroves, including carbon storage values and sequestration site potential, and to determine rates of growth or decline is needed and assistance with planning for sustainable mangrove use is also needed.

A Palau Forest Action Plan[108] is being implemented. It is measured by the results of a 10-year repeated Forest Inventory and Analysis (FIA) program on 56 plots operated in cooperation with the US Forest Service that measures the extent, growth, composition, mortality, and health of forests as well as land use changes and potential for wildfire in the Republic. The last FIA was conducted in 2014 and the next one is due in 2024. Trends indicate that there may be some areas in Babeldaob where non-forest vegetation reverted to forest. Comparisons of 1987 and 2007 surveys suggest that forested land in Babeldaob was maturing and may be encroaching slightly on non-forest vegetation. In contrast, Peleliu, Koror, and Angaur were losing forested land to urban and non-forest vegetation land uses.[109,110] During 2004 and 2005, a semi-quantitative survey was conducted to determine important forest areas of Babeldaob[111]. More research using similar methodologies at finer spatial and temporal scales would provide a better understanding of changes in the vegetation landscape of Palau and assistance with land use planning would ensure forests are incorporated into sustainable land management.

Per the 2014 Palau FIA, Palau had high forest canopy cover in 2014 with some missing canopy cover associated with wind or fire disturbance. Approximately 40% of coconut trees were infested with coconut rhinoceros beetles. Less than 1% of the total forest area was covered with non-native invasive plants. The mean percent cover of the native invasive vine *Merremia peltata* decreased by 17% compared to 2003. Between 2003 and 2014, the average height of all trees in Palau increased by 2 ft. The forest grew an estimated 100,000 tons of tree biomass per year

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[106] Government of Palau. 2018 Draft Sustainable Forest Management Policy. Ngerulmud.
[107] Greenberg et al. 2020
[108] Taken from Government of Palau. 2021. The 2021-2030 Republic of Palau Statewide Assessment of Forest Resources and Resource Strategy (SWAP). (Palau Forest Action Plan). Situation Analysis. Koror
[109] Cole et al. 1987.
[110] Donnegan et al. 2007.
[111] Costion & Kitalong. 2006.

(50,000 tons of carbon), offering potential for economic uses and benefits from sustainable forest use. The percentage of disturbed forest area increased from 1% to 25%, tree damage increased by 10%, and trees with moderate to heavy epiphyte loads decreased from 45% to 15%, all likely due to major typhoon impacts prior to the inventory in 2012 and 2013 (Dendy et al. 2021)[112]. Given the mixed conditions of the forest, careful technical and land use planning, combined with restoration and invasive species actions, enable sustainable use or forest restoration while avoiding and minimizing threats from fire, invasive species, climate change, poor land use patterns, and other impacts are needed. A 2018 draft Sustainable Forest Management Policy proposed a "No Net Loss" policy for Palau's forests. The Policy needs to be endorsed and implemented.

Biodiversity, Protected Species, and Endangered/Threatened Species: Palau has high biodiversity on land and underwater, and this biodiversity underpins economic sectors from tourism to fisheries and agriculture. Several species are protected by national law, including nearly all birds, sea turtles, certain high-value fish species, certain invertebrates, and more. However, many of the national laws and regulations protecting Palau's biodiversity are outdated and need to be updated, but these await updated comprehensive biological inventories and assessments; for instance, the last avian assessment was in 2005 and the last bat assessment was in 1991. Palau does not have an official Endangered Species list, but around 24 marine species and 17 resident terrestrial species were listed as threatened by the IUCN Red List in 2019. The condition of these threatened species was mixed, with many stable, but with some key species (such as the iconic and important Micronesian Pigeon) rising in threat level between reporting periods.[113] Palau does not yet have national regulations for endangered species, although these are being advanced and when complete will need to be communicated and then enforced, along with the implementation of technical species recovery plans.

Invasive alien species pose a threat to Palau's native biodiversity, including agro-biodiversity, and require research and assessment, prevention, control, and eradication measures, consistent public and targeted outreach, and technical planning. Many cultural practices are tightly linked to biodiversity, thus support for cultural programming that ties nature to culture is a priority. Understanding of genetic diversity is limited but necessary for Palau to implement its commitments to the convention on biological diversity, maintain agro-biodiversity, and benefit from Access and Benefit Sharing opportunities from the use of genetic data. Research is underway at the Palau Community College (PCC-CRE). Continued and expanded operations of invasive species protection, including preparation of species response plans and procedures are needed.

Protected Areas: In 2019, 68% of Palau's nearshore marine areas were managed under some sort of conservation regime, although only 14% was set aside as a no-take Marine Protected Area. One quarter of Palau's terrestrial area was managed for conservation (including the Rock Islands of Koror), and 10% was a no-take protected area on land. Over forty percent of marine areas and 9% of terrestrial areas were in the Palau Protected Areas Network (PAN).[114] Several key wetland and land habitats are underrepresented or missing from the PAN. Protected areas in the PAN receive financial benefits from a portion of the Pristine Palau Environment Fee. Conservation budgets for protected areas have declined significantly because of the reduced tourism numbers seen since the COVID-19 pandemic began. Monitoring, enforcement,

[112] Dendy et al. 2021 in prep
[113] NEPC. 2019. 2019 State of the Environment Report, Republic of Palau. National Environmental Protection Council (NEPC), Government of Palau: Koror, Palau. 100 pages.
[114] NEPC, 2019.

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education, research, and restoration activities in PAN sites have been limited due to these funding constrictions. Palau has a National PAN Strategy and Action Plan but needs resourcing to further implement it, particularly to improve compliance and enforcement in PAN sites and habitat restoration and climate adaptation. An update to a 2013-2014 Protected Areas Management Effectiveness (PAME) assessment is underway to measure the status of protected areas.

Freshwater management: Freshwater is generally abundant in Palau through a network of surface streams, although drought can decrease water availability. There are few groundwater sources, although there is ongoing work to identify and quantify the value of aquifers and to determine recharge processes and sustainable extraction. Further examination of these water sources is needed, especially on outer islands where there are no streams and where sea level rise poses a threat. Streams on Babeldaob support diverse riparian and aquatic diversity and drain into highly biodiverse and productive estuaries and nearshore areas. Human disturbance, poaching, fire, unsustainable water usage, erosion, feral animals, chemical runoff from dumps, and climate change all threaten the ecological integrity of freshwater habitats and the quality and quantity of freshwater, by introducing sediment into water systems. Forest and landcover restoration and rehabilitation, combined with fire prevention and other threat abatements, is needed for highly erodible areas and needs to be done in partnership with communities.

Three-quarters of the population relies on Airai's Ngerikiil watershed and the Ngerimel Dam for freshwater. Many small water pumps pull water from small watersheds to feed villages around Babeldaob. In 2017-2018 up to 15% of public water sources failed water quality tests for the presence of potentially harmful coliform bacteria and up to 19% of systems failed due to turbidity (dirt in the water, which can harbor bacteria and chemicals).[115] Palau only has testing capacity for post-treatment water quality, which is a measure of multiple influences including input water and water treatment, but which needs to act as a proxy for overall environmental water quality given low national testing capacity. Environmental pollution entering a water system can overwhelm public water treatment facilities, resulting in lower water quality tests. Integrated land use planning (at the state level) combined with technical watershed planning, protection, and rehabilitation are needed to maintain water quantity and avoid a reduction in water quality, both for human consumption and ecosystem function.

There is little understanding of the impacts of the diversion of water to meet human needs (particularly during droughts), which may potentially interfere with the lifecycles of aquatic organisms, and thus education and outreach on water conservation is a minimal first step. Catchments within Palau watersheds are developed for a variety of purposes, ranging from use by private residences to agriculture. Water sources are covered by several sets of regulations that mandate 60-foot riparian buffers (on both sides) and prohibit development and sewer systems within a 300-foot radius of any water source. Very few of the watersheds above public water sources are protected or zoned to minimize impact. Most are seeing a growth in development and thus high levels of sedimentation and decreasing water quality, necessitating regular implementation of EQPB's regulations, monitoring, and enforcement. EQPB's laboratory capacities are limited and can only test for common pollutants in water. Expanding laboratory capacity to include toxins, chemicals, and minerals in water and soil is needed for Palau to maintain human health as more and more intensive and industrial uses are introduced to Palau's steep and erodible lands. Continued and expanded surveillance and enforcement are also needed to ensure that development permit conditions are implemented and resources important to human health, livelihoods, or the economy are not harmed.

[115]NEPC, 2019 using EQPB test results.

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Environmental Governance: The Ministry of Agriculture, Fisheries, and the Environment Bureau of Environment (BOE) coordinates and implements programs related to forests, biodiversity and protected or endangered species, freshwater quality, protected areas, threats such as invasive species, and community and public outreach on environmental stewardship. The Ministry envisions a Palau where sustainable food production and wise stewardship of our marine and terrestrial resources enhance the well-being and economic livelihoods of all. The Division of Biosecurity in the Ministry of Finance has the responsibility of protecting Palau's borders from invasive alien species. The Palau Environmental Quality Protection Board (EQPB) is responsible for implementing, monitoring, and enforcing environmental regulations on (i) earthmoving, (ii) marine and freshwater quality, (iii) toilet and wastewater disposal facilities, (iv) solid waste management, (v) pesticides, (vi) public water supply systems, (vii) environmental impact statements, (viii) air pollution control, and (ix) ozone depleting substances. The Division of Fish and Wildlife Protection (DFWP) in the Ministry of Justice enforces species protection. Other national and state government agencies are active in cross-sector coordination. Numerous nongovernmental organizations and private business partners are also active in the environment sector.

Because the environment sector covers all land, water, and all other resources in Palau for the purpose of maintaining human health and livelihoods, cross-sector coordination is essential. MAFE's Office of Strategic Support Services (OSSS) coordinates cross-Ministry actions and leads communications to build awareness and environmental stewardship. The OSSS also acts as the Secretariat for the Food Systems Task Force, which is a government-wide body tasked with increasing food security (availability via production as well as affordability, access, and consumption). The Secretariat for the National Environmental Protection Council (NEPC), a cross-Ministry coordination body, sits in the Ministry of Finance. The NEPC Secretariat serves as the focal point for many international granting mechanisms and is an important funnel for channeling international donor funds to environmental action on the ground. The NEPC Secretariat also coordinates the measurement of SDGs, including SDGs 2,6, and 11-15, which are directly relevant to the Environment Sector. The Office of Climate Change (OCC), which coordinates the impacts of a changing environment on all of Palau's sectors, sits in the Office of the President. OCC is updating the Palau Climate Change Policy and Action Plan, which will identify climate adaptation, mitigation, and disaster response needs for 2024-2034. OCC works closely with the National Weather Office and the National Emergency Management Office (NEMO). OCC, NEMO, and the National Weather Office to update climate change projections that will then feed into the updated sector and land use plans.

Palau's eight sets of environmental regulations cover every aspect of the environment, with a primary benefit being the protection of water for human and habitat health and are implemented by EQPB. Spatial data for all of Palau's lands and waters are housed at HE Palau Automated Land and Resources Information System (PALARIS) in the Ministry of Finance. Spatial analyses conducted by PALARIS influence the selection of sites and land and marine use plans for every sector of Palau's development. PALARIS has been tasked with conducting a detailed analysis of suitability for a new national hospital based on social criteria such as access, economic aspects such as cost, and environmental aspects such as water availability and hazardous materials disposal. Belau National Museum is also the repository for the nation's terrestrial heritage collections and information. It is the home of the National Bird Monitoring Program and implements research and conservation activities on natural heritage and on links between biodiversity and culture. The Bureau of Cultural and Historical Preservation (BCHP) also contributes to natural and cultural heritage programming.

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Palau published a State of the Environment Report (SOE) in 1994, 2017, and 2019, and a follow-up SOE is scheduled for 2024. A Food Systems Stock Take Report is due in 2023, 2025, and 2027. A Voluntary Report to the SDGs is due in 2024. A National report on Palau's performance under all Rio Conventions (CBD, UNFCCC, CCD) is due to be reported at a SIDS forum in 2024. All these national reports will require data collection and measurement of indicators. A 4th National Environment Symposium will need to be held in early 2024 to collect and agree on indicators and status. Palau does not have Building Codes, which need to be climate resilient and low emission to meet our stated climate commitments. Necessary climate-resilient upgrades to infrastructure have been identified in relevant sectors. In the environment sector, continued and expanded operations of the national nursery are needed to maintain and increase forestry and food security efforts to rehabilitate land and reduce climate vulnerabilities across multiple sectors.

Updates to several aspects of the environmental legal framework are needed in the next few years, including updates to the Biosecurity Act and regulations, marine protected area act and regulations, endangered species regulations, marine mammal act regulations; and the PAN Act's enforcement rules and regulations.

Community Priorities: Natural resources and the environment underpin social and economic security for Palau's communities, and thus maintaining productive landscapes and seascapes, and ensuring perpetual biodiversity and pristine environmental conditions to fuel tourism growth is essential. Communities have already invested heavily into protected areas on land and in nearshore areas, and the nation's global biodiversity and protected area commitments are met exclusively through State and community action. Implementation of land use plans and zoning, via mandated Planning Commissions and State Planning Offices, is an immediate priority, included in the Governance Pillar. The maintenance and growth of protected areas, including the expansion of roles of PAN Rangers to encourage compliance with multiple environmental and cultural laws, is a medium-term priority.

Improving public water sources is an immediate priority for all communities outside of Koror. Water systems need improvements along their entire supply and distribution chain, including watershed rehabilitation. Institutionalizing a program of erosion control, tree planting, or land cover rehabilitation to improve water quality on Babeldaob (for which there is proof of concept) is an immediate priority. Improving environmental conditions around aquifers on outer islands is also an immediate priority to protect their extremely limited water supplies.

Rural communities are particularly reliant on natural resources for food security. Management of invasive alien species (IAS), including control of fruit flies, coconut rhinoceros beetles, and invasive vines, and prevention of new priority introductions such as brown tree snakes and tilapia, are important for food security. Institutionalizing existing community-based IAS programs of prevention, awareness, reporting, and control (for which there is also proof of concept) is also an immediate priority for food-productive areas.

In Koror, improving the management of the Rock Islands Southern Lagoon World Heritage Site (RISL) is a priority, with an emphasis on enforcement of the national and state legal framework.

Strategy

To continue to better understand the nature and extent and thereby manage the country's environment in support of the well-being and economic livelihoods of the people of Palau.

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Guiding Principles

- Palau's ecosystems play a vital role in maintaining island ecological processes is recognized and valued
- Owners of natural resources have the right to use, manage and develop these resources and ensure that their activities do not harm the environment and downstream ecosystems
- Forest, land, and marine resources are important to our environmental, social, and economic well-being and need protection from the harmful effects of pollution, fires, invasive species, and unsustainable development
- State governments maintain and increase forest cover with national, technical, and financial support (Palau PAN and other funding mechanisms)
- Effective environmental management requires timely, reliable, and accurate information
- Generate sustainable economic benefits from environmental landscapes, species, and related products, through tourism, sustainable use, and cultural uses

Priority Programs and Projects (2023 to 2026)

- Forest, mangrove, and land research, planning, ecosystem restoration, landcover rehabilitation, and erosion control, and expanded nursery operations
- Species assessments (birds, bats, and trees, including genetic level assessments).
- Protected areas management (enforcement, education, restoration, climate adaptation)
- Community and sector land use planning, including spatial analyses and technical assistance
- Threat abatement, including invasive species prevention, control, and eradication where possible, development of species response plans, and fire prevention
- Update environmental laws and regulations
- Environmental communications and awareness programs, including cultural programming and outreach on compliance with laws
- Monitoring, surveillance, and enforcement of environmental and species laws, regulations, and permit conditions, including expanded capacity to monitor via laboratory capacity
- Continued cross-sector coordination
- On-time environmental indicator reporting (nationally, regionally, and internationally)

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Environment Sector Performance Monitoring and Financing Plan

	Priority Performance Indicators, Baselines and Targets	Data Sources and Reporting Mechanisms	Assumptions and Risks
National Impact	A Palau enriched by healthy environments that sustain our culture and livelihoods, expand our economy, and strengthen the resilience of our island ecosystems and communities.	SDG Voluntary National Report	
Sector Outcomes	1. Maintained or improved forest extent and health (Babeldaob as a proxy): Baseline: 73% forest and 11% mangrove coverage; 25% disturbed forest (2014). 2. Improving water quality: Fail rate for coliform and turbidity go from 15% to 19% to <10% (2017-2018) 3. Maintained or improved endangered species status:a) Baseline: 3 CR, 10 EN, 17 VU, 19 NT (2019) b) 4. Improved Protected Area Management Effectiveness (PAME) scores: Baseline: 10% Poor, 15% Adequate, 13% Fair, 4% Good, 0% Effective (2014)	1. 2024 FIA 2. EQPB and PPUC water quality tests 3. IUCN Red List 4. PAME Report (due 2024) 5. 2024 SOE	Assessments are completed on time and data is readily available for reporting. Environment owners and users effectively support conservation and protection.
Multiple Ministry and Agency Outputs	• Forest Policy endorsed; Forest Action, Endangered Species, and IAS Species Response Plans in force • Increased data available (FIA, forest, mangrove, bird, bat, climate research) • Fewer degraded/eroding lands • Improved invasive species management • Updated environmental laws and regulations • Improved PAN site management • Spatial Land use planning and zoning implementation • Upgraded laboratory capacity to test water and soil • Expanded environmental monitoring and smrveillance • Updated and on-time international reports • Increasing environmental and natural-cultural outreach • Improved coordination and mainstreaming	2024 SOE Annual reports from: MAFE EQPB NEPC & PALARIS & Biosecurity Division (MOF) OCC BNM DFWP NEMO National Weather Office State Governments	Institutional Capacity exists to implement programs. Equal participation from all stakeholders and good Ministry and Agency coordination sustained.

Ministry Inputs and Activities ($)	FY 24	FY 25	FY 26	FY27	Assumptions and Risks
I. Annual PPUC recurrent budget					There is active engagement and support from land owners and users and all other stakeholders. Donor and development partner funding is available. Availability of expertise and consultants
I.1 Annual Recurring Budget (Budget for BOE including PAN Office only)	200,000	250,000	300,000	300,000	
I.2 Annual Grant Funding	1m	2m	5m	5m	
II. PDP Recurrent Programs c)					
II.1 Forest planning and research, species surveys	120,000	120,000	120,000	120,000	
II.2 Improved endangered species, invasive species, PAN Site plans and management	300,000	300,000	300,000	300,000	
II.3 Improved spatial analysis and support for land use planning ($80,000 DDP; $50,000 ROP)	130,000	130,000	130,000	130,000	
II.4 Updated national laws and regulations	50,000	50,000	50,000	50,000	
II.5 Updated national reports	50,000	50,000	50,000	50,000	
II.6 Increased environmental outreach	50,000	50,000	50,000	50,000	
II.7 Community: erosion and water quality control program (Babeldaob)	100,000	100,000	100,000	100,000	
II.8 Community: Outer islands & Babeldaob aquifer improvement and protection	410,000	410,000	410,000	410,000	
II.9 Community: IAS control	160,000	160,000	160,000	160,000	
II.10 Community: Planners, Commissions, Technical Studies, and Engineering	1.77m	1.12m	1.12m	1.12m	
II.11 Community: Improved enforcement in RISL	150,000	150,000	150,000	150,000	
III. PDP Capital Programs					
III.1 Expanded water quality testing capacity at EQPB	1m	0	0	0	
III.2 PCC Expanded genetic research capabilities	0	0	1m	0	
III.3 Expanded nursery capacity	50,000	50,000	50,000	50,000	
TOTAL	**5.54m**	**4.94m**	**8.99m**	**7.99m**	

BNM: Belau National Museum, DFWP: Division of Fish and Wildlife Protection, EQPB: Palau Environmental Quality Protection Board, FIA: Forest Inventory and Analysis, IAS: invasive alien species, IUCN: International Union for Conservation of Nature, MAFE: Ministry of Agriculture, Fisheries and Environment, MOF: Ministry of Finance, NEMO: National Emergency Management Office, NEPC: National Environmental Protection Council, OCC: Office of Climate Change, PALARIS: Palau Automated Land and Resources Information System, PAN: Palau Protected Areas Network, PPUC: Palau Public Utilities Corporation, SDG: Sustainable Development Goals, SOE: State of the Environment Report.
a) Excluding status changes due to new research
b) IUCN listing by the level of threat: CR = Critically Endangered; EN = Endangered; VU = Vulnerable; NT = Near Threatened, as reported in the 2019 SOE (NEPC, 2019). c) Many grants fund fisheries and agriculture. This is an estimate.

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FINANCIAL SERVICES

Goal

Improve the financial sector performance to support the economic growth and development of Palau.

Status and Trends

Whilst the COVID-19 pandemic has had a significant effect on the Palau economy the banking sector in Palau remains sound and is considered resilient enough to cope with this shock. The financial markets reflect the small size and nature of the economy, but changes are needed to reflect the potential of a new and larger economy.

The current banking sector includes:

- Three US-owned banks: Bank of Hawaii, Bank of Guam, and Bank Pacific, all US FDIC insured.
- Two local foreign-owned banks: Asia Pacific Commercial Bank and Palau Investment Bank
- The National Development Bank of Palau (NDBP) and the Palau Housing Authority that provides housing loans.
- Non-FIC (Financial Institutions Commission) licensed financial services: five Credit Providers, five Credit Unions, two Insurance companies, and two Remittance companies.

The NDBP is relatively large with total assets as of December 2022 of $45.6 million (table 19). Legislation passed in 2014 allows the NDBP to take deposits. Commercial banks provide limited housing and commercial loans. Palau's Financial Institutions Commission reports lending for commercial banks and non–financial institutions for the quarter that ended December 30, 2021, as $32,733,000.

Table 19: Total Loans for Commercial Banks, Non-Financial Institutions, and NDBP December 30, 2022

Type of Institution	Lending ($)
Commercial Banks	25,258,000
Non- Financial Institutions	7,475,000
NDBP	37,344,000
Total	**67,077,000**

NDBP is the largest lender in Palau with a total portfolio as of December 30, 2022, of $37,344,000 – mostly in housing.

Financial inclusion is limited as literacy is considered low and due to social obligations savings are limited and mostly held as cash.

Over the past 2 years, individual savings increased due to Workforce Innovation and Opportunity Act payments under the US Cares Act. Commercial banks require recipients of these

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payments to have a bank account to obtain the funds. It is expected that as the economy recovers savings will diminish as funds are used as deposits for loans.

Eighty percent of the population lives in Koror, and overall access to financial services is high. ATM access has increased recently with the newest installs in Babeldaob and Peleliu however there are still issues with access to financial services for remote communities. Many citizens are highly leveraged. There is an opportunity to improve access to financial services through high-speed internet services widely available through cell phones. The two major US banks have recently implemented online applications with quicker turn-around times. Most deposits from Palau remain used abroad. The foreign banks report that lending overseas is lower risk and provides a higher return. Government investments abroad are nearly $1 billion.

The Financial Institutions Commission (FIC) oversees all bank operations. The US Banks are regulated by US Regulators. The Financial Intelligence Unit (FIU) oversees anti-money laundering and counter-financing of terrorism activities under the US Government and international frameworks.

Recently enacted and upcoming legislation include: (i) Secured Transaction Registry – enacted and in place; (ii) New Corporations Act – enacted and in the process of being implemented; (iii) Private Bank and Trust Bank Legislation – enacted, not implemented; (iv) Digital Residency Act – enacted and implemented; and (v) Foreign Corporations Act – under review.

In addition to a traditional financial sector, the Republic of Palau has undertaken an approach to Fintech to help the economy to diversify from a dependency on tourism and take fuller advantage of the relatively new, fast internet services. The Digital Residency program is modeled after that of Estonia. Palau is implementing a Stablecoin pilot to improve financial inclusion and access.

A recent actuarial evaluation indicates that Social Security (SS) is in a rapidly deteriorating financial position and is at risk of collapse within 10 years. The Civil Service Pension Plan (CSPP) is in a more dire situation and could collapse by the end of FY 28. The collapse of SS and CSPP would have a detrimental effect on the financial sector as customer loans would not be repaid and savings would decrease. Working groups were formed to consider reforms that would ensure the long-term financial sustainability of SS and CSPP. Government policy is to implement reforms to ensure longevity and sustainability.

Strategy and Priority Programs and Projects (2023 to 2026)

Financial sector performance can be accomplished through:

- Market improvements - Enhanced financial literacy, improved access to finance for Small and Medium Enterprises (SMEs), improved environment for business, improved consumer access to financial services in rural and outlying areas, increased Fintech options, and improved access to stakeholders abroad, and
- Macro System Improvements – Development of components for the financial sector, expansion of oversight to all financial institutions, and upgrade capacity with government and regulators.

NDBP requires a new building as it expands its services and client base.

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Financial Services Performance Monitoring and Financing Plan Priorities

	Performance Indicators, Baselines and Targets	Data Sources & Reporting Mechanisms	Assumptions and Risks
National Impact	A strong, varied, and larger financial sector will enable the economy to grow leading to greater overall prosperity of the nation. It will lead to (i) business growth, (ii) new opportunities, (iii) increased access to capital, (iv) new job creation, (v) greater and varied job opportunities, and for individuals (i) easier access to finance, and (ii) increased standard of living.	Office of Statistics Econmap IMF	
Sector Outcome	Greater community understanding and use of the financial sector as evidenced by increased deposits and loans including increased use of technology. Legislation is passed that creates a safer and more equitable financial environment.	NDBP and FIC annual reports, ADB, PSDI; World Bank; IMF Assessments/Reports	No further pandemics or natural disasters. Effective government research and support to businesses. No global or country economic recession
Sector Outputs	• Greater community understanding of the financial sector (ongoing). • Improved environment for SMEs. (as recorded by ADB CPA, PSDI, and increased number of business licenses, tax revenue, and private sector jobs). • Improve access to finance and financial services (ongoing). • Financial literacy programs conducted – MOE establishes and implements financial literacy program by FY25. Minimum of 8 public literacy programs per annum. • Increased use of technology in financial services (ongoing). • Individuals' retirement benefits are safeguarded (TBD). • Legislation passed for the protection of land, bankruptcy, and consumer credit protection by end of FY25.	Office of Statistics, Econmap, Bureau of Revenue and Tax, NDBP, FIC, ADB	The private sector invests in SMEs. Commercial banks offer products and services consumers want.

Sector Inputs and Activities ($)	FY 24	FY 25	FY 26	FY 27	Assumptions and Risks
I. Annual Recurrent Budget					Political support for initiatives to improve the environment for private business. Consumers adopt new, improved technology. MOE and private sector implement improved financial literacy programs. Political support to prevent the collapse of Social Security and Civil Service Pension Plan.
I.1. Annual Financial Institutions Commission recurrent budget	34,000	35,000	36,000	37,000	
II.2 Annual Financial Intelligence Unit recurrent budget	159,000	163,770	168,600	173,600	
II. PDP Priority Recurrent Programs					
II.1 Increase the use of new technology for improved financial access.	100,000	100,000	100,000	100,000	
II.2 Enhance the current business environment to ensure it is competitive business-friendly – survey to understand issues, challenges and constraints.	30,000	0	30,000	0	
II.3 Develop and implement financial literacy programs for schools, individuals, and SMEs.	65,000	50,000	50,000	50,000	
II.4 Increase support for business and financial degrees	60,000	60,000	60,000	60,000	
II.5 Initiative for Financial Leadership Development	240,000	240,000	240,000	240,000	
II.6 Research and implement technology solutions with assistance of ADB, IMF and WB	100,000	100,000	0	0	
II.7 Provide regulatory and technical support for the implementation of Fintech solutions	100,000	100,000	0	0	
II.8 Develop and operate a Credit Bureau	260,000	40,000	40,000	40,000	
II.9 Research and implement an online land registry with assistance of ADB, IMF and WB	0	100,000	0	0	
II.10 Introduce Legislation for Protection of Land, Bankruptcy, and Consumer Credit Protection	200,000	50,000	0	0	
II.11 Prevent the collapse of Social Security & Civil Service Pension Plan	500,000	0	0	0	
III. PDP Priority Capital Programs					
III.1 New bank building for NDBP to enable expansion of staff and services	500,000	1.2m	0	0	
Total:	**2.35m**	**2.14m**	**75k**	**701k**	

ADB: Asian Development Bank, CPA: Country Policy Assessment, FIC: Financial Institutions Commission IMF: International Monetary Fund, MOE: Ministry of Education, NDBP: National Development Bank of Palau, PSDI: Private Sector Development Initiative, SMEs: small and medium enterprises, TBD: to be decided, WB: World Bank.

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FISHERIES AND AQUACULTURE

Goal

A Palau where sustainable food production and wise stewardship of our marine and terrestrial resources enhance the well-being and economic livelihoods of all.

Status and Trends

Overview and Types of Fisheries: The fisheries of Palau can be broadly categorized into six distinct groups:

1. Coastal subsistence: The catch that is retained for consumption by the fisher or given to family or friends. For simplicity, the catches from recreational fishing and game fishing are considered as production for home consumption, and therefore as a component of subsistence fisheries.
2. Coastal commercial and offshore day boat: The catch that is sold (i.e., enters commerce) and that derives from fishing operations that take place in lagoons, reefs, deep slopes, or shallow sea areas. This category also includes fish caught by trolling/handing and Fish-Aggregating Devices (FAD) fishing from small vessels in the open sea adjacent to islands.
3. Commercial offshore locally based: The Palau tuna fishery involves longlining with domestic longline vessels fishing exclusively in Palau waters. The domestic sector comprises Palau flagged vessels and, in the past, locally based foreign vessels which were under domestic charter agreements as foreign vessels and had onshore processing facilities in Palau to export products.
4. Commercial offshore foreign-based: The catch from industrial-scale tuna fishing operations that are based at ports outside of Palau.
5. Aquaculture: The production from the farming of aquatic organisms, including fish, mollusks, crustaceans, and aquatic plants.
6. Freshwater/Inland: The catch from streams, rivers, and lakes, whether for subsistence or commercial purposes.

The Government of Palau is recognized as a global leader in environmental stewardship, protecting 20 percent of its forests, 30 percent of its coral reefs, and 80 percent of its pelagic waters in no-take reserves[116].

Palau has committed to tripling aquaculture and pelagic fishery production for local food security by 2030. The estimated commercial pelagic fishery production in 2022 was 47.7 mt of pelagic fish, as reported by Belau Offshore Fisheries Inc. (BOFI), a local operator licensed to fish in Palau's offshore domestic fishing zone. This total was comprised of: Long Line all species (yellowfin/bigeye tuna, billfish), 31.5 mt; Pole-and-Line all species (skipjack tuna), 0.36 mt; and Local Fishermen all species, 15.84 mt. Nearshore reef fishery estimates are 2,115 mt per year, although this may be a gross underestimate.[117] Some nearshore fishery areas and species are

[116] Ministry of Agriculture, Fisheries, and the Environment 2022: Palau Blue Prosperity Plan – provide and protect.

[117] Dacks, R., Lewis, S. A., James, P. A. S., Marino, L. L., & Oleson, K. 2020. Documenting baseline value chains of Palau's near-shore and offshore fisheries prior to implementing a large-scale marine protected area. Marine Policy, 117. https://doi.org/10.1016/j.marpol.2019.103754.

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considered overfished based on fish size, Spawning Potential Ratio (SPR), Catch-per-unit-effort (CPUE), fisher perceptions, and other indicators.[118] Aquaculture production consistently increased from the 1990s onwards, both in terms of the number of pieces produced and in the diversity of species. In 2017 470,000 milkfish and 12,600 clams were produced, with much smaller numbers of shrimp and reef fish. Since then, there has been growth in multiple clam species, sea cucumber, and rabbitfish farming (Footnote 118).

Nearshore coastal fisheries: The 2019 State of the Environment (SOE) report for Palau identified 114 indicators, of which 62 are attributed to marine and mangrove environments (Footnote 118). In 2019 "62 marine and mangrove indicators were assessed. Fifty-five percent of indicators were in good or fair condition or with a healthy trend." This was a decrease since an early 2017 SOE report in part due to improved information and in part due to continued declining nearshore fisheries.

The reef fish stocks (albeit from a limited number of sites) indicate fish biomass (combining numbers and size of fish observed) was below what was expected. For the 12 species that data was available for from 1982 to 2015, four species were declining, one was stable, four were increasing and three showed no clear trend. Invertebrates were mixed with trochus density decreasing, clam density decreasing on inner reefs, but increasing on outer reefs, and sea cucumbers were in most cases declining.

Muller et al 2021 assessments of biomass in 2019 compared with the previous assessment in 2017 reveal there was no change in biomass over time.[119] However, there was an increase in the herbivore biomass. Habitat was the most significant predictor of fish biomass, with the highest biomass found in western fore-reef sites and the lowest in inner reef sites. Higher biomass levels were recorded closer to large marine protected areas (MPAs). The inner reefs were the most affected with increased fishing pressure leading to lower biomass.

The State of the Environment report estimates that 79 percent of the value of nearshore fisheries and 50 percent of the value of offshore fisheries are unsustainable. The contribution of sustainable fisheries to the Palau economy is about 1.8 percent of GDP. Overall, the demand for fish by the residential and tourism market far exceeds supply but the short-term emphasis needs to be on sustainability of catch, including greater use of pelagic food fish while adjusting catch in near shore reef fisheries to sustainable limits. Increasing pelagic fishery production and consumption to shift pressure away from coastal fisheries, and aligning nearshore fishery production with sustainable limits that consider the impacts of climate change are immediate priorities.

The coastal subsistence fishery provides the main source of protein for coastal communities, with fishers mainly operating around the inshore coral reefs and reef flats, mangroves, and lagoons. Gillett 2016 estimated the total subsistence catch to be 1,250 tonnes (t) in 2014 with a value of USD3.3 million.[120] There are no recent estimates, and the Bureau of Fisheries (BOF) does not collect specific data from subsistence fishers. The Palau International Coral Reef Center (PICRC) conducts sporadic research on fishery harvest, and in 2022 began another year-long fish market survey. The main methods used in the subsistence fishery are

[118] NEPC, 2019. State of the Environment Report. Ngerulmud

[119] Muller-Karanassos, C., Otto, E. I., Nestor, V., Olsudong, D., Bukurou, L-M., Mereb, G., and Bukurrou, A., 2021. Fish populations in Palau in 2019 while still overexploited show signs of recovery. Palau International Coral Reef Centre Technical Report 20-07, Koror, Palau

[120] Gillett R. D. 2016. Fisheries in the Economies of Pacific Islands Countries and Territories. Pacific Community, Noumea, New Caledonia.

gleaning on reef flats and mangrove areas, trolling, hook-and-line, and the use of hand spears, spearguns, set nets, and cast nets. The development and deployment of consistent data collection protocols and the establishment of Stock Assessments and Harvest Assessments are needed to track fishery production and consumption and to enable adaptive management to be climate resilient.

According to the 2020 Palau census results, there were 5,056 households across Palau (average of 3.5 people/household), and 1,941 of these had at least one family member involved in fishing activities in 2020, with over 75 percent fishing for home consumption only. There were also 188 canoes and 646 power boats across Palau for recreational activities, and this is likely to be both subsistence and coastal commercial fishing activities.

Invertebrate fisheries are particularly important to women throughout Palau but are understudied and have few management plans or species plans. Stock and sustainable harvest assessments for invertebrates found in all nearshore habitats (including mangroves) are needed.

Offshore pelagic fisheries: In October 2015 Palau passed the Palau National Marine Sanctuary (PNMS) Bill to preserve 80 percent of Palau's exclusive economic zone (EEZ) of 500,000 square kilometers as a protected area free from fishing and exploitation and 20 percent dedicated to a domestic pelagic fishery for local use and limited export. The reform was made effective on January 1, 2020. The sanctuary is one of the largest protected ocean areas in the world. However, although well intended, the act was implemented prior to the development of a domestic pelagic fishery. With the departure of Palau's foreign-owned commercial long-line fishing fleet on January 1, 2020 (due partly to the PNMS going into effect and partly to the shut-down of flights because of the COVID-19 Pandemic) the lack of readily available tuna and limited domestic capacity to harvest pelagic resources led to shortages of pelagic fish and reduced the food security of Palauan communities. Fisheries markets, their scale, difficulties, and needs are not well understood, further exacerbating food insecurity. Investment into research and support services to facilitate improved fisheries marketing and aligning supply and value chains is needed. Initiatives such as "From Hook to Fork" to maintain the value of fishery products would also be beneficial to increase the economic value of all of Palau's fisheries and strengthen a "Blue Economy".

Marine protected areas have been shown to be successful in increasing fishery productivity, but Palau's many small marine protected areas and large PNMS could benefit from comprehensive analysis and planning. Marine Spatial Planning (MSP) was underway in 2023. Results of the MSP (expected in 2024) will likely identify changed investment needs, including larger or small marine protected areas. This includes quantifying the values of different habitats, including mangroves, which are important to carbon storage.

Palau's small-scale, day boat fleet relies on Anchored Fish Attracting Devices (aFAD) to increase its effectiveness and productivity and it is unknown how many participants there are in the fishery or the annual production of pelagic fish across the fleet. However, the Northern Reefs Fisheries Cooperative (NRFC) pelagic fishing vessel landed an estimated 4 mt of pelagic fish over a 12-month period and an analysis of the catch from this representative vessel indicates that the species composition of the day boat aFAD fishery is dominated by small pelagic species such as kawakawa (*Euthynnus affinis*), small yellowfin tuna and skipjack tuna with the occasional blue marlin (*Makaira mazara*). The fishery contributes to the food security of Palauan residents and the future of this fishery is dependent on reliable access to a productive aFAD network that is supported by stable and continued funding by the Palau Bureau of Fisheries (BOF). Provided the essential prerequisites for the success of fisheries co-operatives are met, additional communities

in Palau could benefit from financial and technical support to launch similar NRFC initiatives with co-operatively owned vessels donated by Palau's international partners. These types of initiatives require careful coordination between agencies, state governments, and the private sector.

Pole and line fisheries have a history of success in Palau and in March 2022, the government of Japan donated a 15m/4.9t fully equipped pole and line vessel to the BOF. This vessel "BOFI MARU" is operated by the newly created Belau Offshore Fishers Inc. (BOFI), a private locally owned fish supplier. In 12 fishing trips, the pole and line vessel landed a total of 1,353 kg of skipjack tuna and other pelagic fish with a mean catch of 113 ± 85 kg per trip. Pole and line fisheries rely on the capture of live bait and BOFI representatives suggested the reliability of bait captured by the boat's bait net system limits their ability to fish on a regular basis. The current pole and line operation, utilizes a lift net system that was donated with the vessel to catch bait, however, previous pole and line operations in Palau (i.e., Masa Kuniyoshi and the SPC chartered pole and line vessel Soltai 105) utilized a "bouke-ami" style surround net. Given the past success of this "bouke-ami" baiting system, this style of net should be acquired for BOFI and tested to increase the baiting performance of the fishery. BOFI crew were trained in Japan in 2022, but long-term institutional capacity building that anticipates the needs of the sector is needed.

Pelagic fish have the potential to meet the demand for local consumption while reducing stress on nearshore food fish. Earlier efforts to establish a commercial fisheries industry (Van Camp in the 1960s and 1990s tuna transshipment) were not sustained. The PNMS Act includes provisions for a new domestic pelagic fishing industry to support the local market. Palau is exploring strategic partnerships to develop a local fishing fleet, establish a central fish auction market, build processing, and wharf facilities, and identify value-added products that can be developed from excess catch or by-catch. Investment in this infrastructure throughout the supply chain is needed, as is sustained engagement with international partners. Identified investment needs include cold chain storage for fishers, distributors, and buyers/end users, Fish Aggregating Devices (FADs), and dockside infrastructure.[121]

As a member of the Parties to the Nauru Agreement, Palau benefits from the sale of vessel days to commercial fishing operators. While the country's allocation of fishing days is small compared with other PNA members, fishing royalties grew to $8.5 million in FY2018. Palau hopes to maintain the benefits of the PNA through the sale of days to other members. However, other partners have argued that it is inconsistent with a fish conservation policy when it encourages an increase in fishing in other waters. Palau hopes that if it does, indeed, suffer a loss of fishing days, the appeal as a conservation area will motivate demand for high-value tourism to make up for the shortfall. The country also hopes to gain support from environmentally focused donors to offset any loss to its direct revenue base. Continued engagement with international partners and with the PNA is an immediate priority, including Palau taking a more active leadership role in scaling up marine spatial planning to the Micronesian region.

Aquaculture: Aquaculture is a relatively new industry with the potential to contribute to the economy and food security while reducing stress on reef food fish. In 2014, milkfish and giant clam aquaculture were valued at $285,000 (Footnote 120), a level far below demand for local consumption and export. Constraints to growth include poaching, inadequate supply of seed

[121] Conservation International. 2021. Companion Document to the Policy Brief: Domesticating the Offshore Fishing Industry in Palau. Short-term priorities for bringing food security and economic benefits from the Palau National Marine Sanctuary (PNMS) and its Domestic Fishing Zone (DFZ) to the Palauan people and Artisanal Fishers.

clams, and the reluctance of fishers to assume loans for expansion due to uncertainties in the market. The existing National Aquaculture policy is outdated and needs to be updated.

Aquaculture, including mariculture, is a focus development area in Palau and an integral link in the food security chain for the country. Aquaculture activity has been slowly expanding and there are two government and several private sector hatcheries. In addition, the Palau Community College houses the Palau Community College Cooperative Research and Extension Program (PCC-CRE) as a Land Grant System and operates a Multi-Species Hatchery and a Research and Development Station bolstering Palau's capacity in aquaculture. This hatchery augments seed stock supply for prospective fish farmers and is also utilized as a demonstration and training facility for those in the community who are interested to learn and develop their skills in the seed production of marine organisms. Aquaculture has the potential to positively impact food security, economic security, and the environment. Encouraging more private sector engagement in aquaculture would benefit from the deployment of Blue Economy innovative business models and market development in addition to sustained technical assistance and extension services.[122]

Gillett (Footnote 120) estimated the total aquaculture production in 2014 to be 22 t and 343,800 pieces (327,800 small milkfish for tuna longline bait and 16,000 pieces of giant clams) with a value of USD285,000. The main species being farmed at the time were milkfish and four species of giant clams, and to a lesser extent, coral, mangrove crab, groupers, and rabbitfish.

Milkfish production in 2016 was estimated at 14 t and there were three farms in operation, all importing their fry from hatcheries in Taiwan or the Philippines.[123] In 2017, one of the private sector farms trialed and perfected the spawning of milkfish and produced 148,000 fries which was adequate to stock two major milkfish farms.[124]. The Palau National Aquaculture Centre (PNAC) started trialing the spawning of rabbitfish and in 2015 had their first success rearing 1,300 fries. This increased to 4,000 in 2016 and 28,000 in 2017, with the fry provided to farmers when they reached a size of 4-9 centimeters (cm).[125]

The 2020 Palau census also recorded the number of households involved in aquaculture, with 32 raising giant clams, 4 raising milkfish and 8 raising other species. There are no indications of the number of people employed at the different hatcheries and commercial farms, but it is assumed to be less than 50.

The Palau Mariculture Demonstration Centre (PMDC) has been focusing on the production of giant clam seeds for distribution to community farms around Palau. In 2017 a total of 71,131 seed clams were provided to 32 farmers for rearing, both for the aquarium trade and for food. In addition, 700 seed clams were used for restocking in the wild in 2015, 1,200 in 2016, and 1,000 in 2017. Continued investment into expansion and decentralization of aquaculture seedling production and training in new species is essential to meet national Blue Prosperity and food security plans.

Financial benefits: As with agriculture, producers shoulder most of the risks associated with the production of fishery products. A key barrier to entry to the pelagic fishery is the cost of

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[122] MAFE. 2022. Palau Blue Prosperity Plan: provide and protect. The plan estimates the cost of innovative tools to be $330,000 per year.

[123] FAO 2018: Fisheries and Aquaculture country profiles – Palau

[124] Gibbons-Decherong, L. 2018. Baseline Information Report: the policy and activity of aquaculture in Palau. Consultant's report to FAO

[125] BMR, 2019. Annual Report 2017, Bureau of Marine Resources, Ministry of Natural Resources, Environment and Tourism, Koror, Republic of Palau.P

equipment and fuel. Fuel is a concern to nearshore fishers as well. High costs become an issue when buyers are hard to find, and the onus to find a buyer is felt by the fisher/supplier, who sometimes must "shop around" to find buyers. There has been slow growth in the creation of fishery cooperatives and businesses that act as a middleman, with the Northern Reefs Fisheries Cooperative (acting as a guaranteed buyer for registered fishers in Kayangel and Ngarchelong, and the Belau Offshore Fishers Inc. (BOFI) acting as a guaranteed buyer of pelagic fish for artisanal fishers. In 2022 BOFI purchased 15,840 kg of fish from artisanal fishers (equivalent to 50% of what BOFI caught by operating one longline vessel). As with agriculture, investment into innovative business models or a digital marketplace to connect producers with buyers is needed. Data to improve financial benefits, including market assessments and analyses, are also needed to improve marketing, pricing, and livelihood benefits. A digital marketplace could also help retain the high value of fishery products and enable a "Hook to Fork" high-value model.

Freshwater subsistence fishery: There is a small amount of subsistence fishing in the limited freshwater areas of Palau, and this is mainly eels and shrimp for home consumption. Gillett (Footnote 120) estimated the catch from this sector in 2014 to be around one tonne annually with a value of USD 10,000.

Governance: BOF is mandated with the development, regulation, and management of nearshore and offshore fisheries and all aquaculture. BOF has regulatory authority over all migratory fish including tuna, which it manages in partnership with regional fisheries management organizations. Other government agencies involved in fisheries include the PICRC, which conducts research including monitoring of PAN sites and is also tasked with coordination of outreach and coordination for the administration of the PNMS. The PCC-CRE conducts research on aquaculture and manages two aquaculture facilities in Ngeremlengui. In the Ministry of Justice, the Division of Fish and Wildlife Protection enforces all national species laws and Maritime Security enforces laws pertaining to the PNMS. State Governments manage fisheries, excluding migratory fish such as tuna, within their own 12-nautical-mile territories. The Palau Land and Resource Information System (PALARIS) in the Ministry of Finance assists with spatial mapping and data management. The Taiwan Technical Mission (TTM), funded through Taiwan's International Cooperation and Development Fund, provides significant technical and financial support for aquaculture development. Bilateral partners including Japan and the United States have provided significant support for pelagic fishery development. Numerous nongovernment organizations and cooperatives plus many private businesses are active in the fisheries and aquaculture sector.

Monitoring and Data and information sharing among and between these agencies is a critical need, but there are few established data management systems to improve data sharing and feedback systems, and adaptive management. The MSP exercise for all of Palau's marine waters from shore to the edge of the Exclusive Economic Zone requires sustained and supported coordination among all fishery and aquaculture sector partners. Climate change has the potential to drastically shift Palau's fisheries in the next 100 years, and expanding research capacity to develop and track climate shifts and impacts is needed.

Grant aid from Japan for up to 500 million yen (approximately $4.8 million) recently provided the government with a set of equipment to build two monitoring stations in Ngeremlengui and Malakal. These new stations will help Palau to improve its capacity to monitor main sea passages and coastal areas. As a result, it is expected that Palau will be able to address illegal fishing and shipping accidents.

Given the multiple aspects and uses of fisheries, from nearshore to offshore and from subsistence to commercial, investment in new and aligned National and State Fishery Policies is warranted and an immediate need. These include spatial plans for specific locations, fisheries regulations on sizes, seasons, gear, licensing, and permitting. This includes regional plans for the west and east side of Babeldaob, which face drastically different impacts from climate change, and for unique fisheries in the outer islands and Koror Southern Lagoon. An update to the Marine Protection Act and its regulations is underway and should include a registration and permitting system to better generate and track data. Education and outreach are needed to facilitate the uptake of best practices and to encourage compliance with updated laws.

Community Priorities: Increasing the resilience of nearshore fisheries is a key priority for the State of Koror and its urban population. Priorities include (i) comprehensive planning for commercial and subsistence fishing; (ii) updates to a regulatory regime to usher in changes to seasons and size restrictions, (iii) marine protected areas, and more; an increase in public outreach and engagement with fishers; and (iv) improvement and sophistication of enforcement to encourage compliance with the updated regime.

Rural and outer island communities are highly reliant on nearshore fisheries, but as owners of all waters out to 12 nautical miles, the communities also see the potential in building more pelagic-oriented fisheries. Investment into cooperative associations, like the NRFC, particularly to build their business and entrepreneurial skills is needed. Climate-resilient infrastructure (including updated docks) and cold chain infrastructure outside of urbanized areas will be needed in later years. Marine protected areas, including those established specifically for fisheries, are managed at the State level, and are discussed in the environment sector. Needs in market development and food systems investment, which are also relevant to fisheries products, were discussed in the agriculture sector. Rangers financed through PAN sites are key enforcers of fisheries rules, but at the community and state levels, they are limited in their ability to apply and enforce national fisheries regulations. Training and alignment of laws are also needed for local Rangers.

Key Issues

- An outdated and fragmented policy and regulatory environment that among others, does not facilitate adaptive management.
- Inconsistent data collection.
- Limited capacity within fisheries management agencies and other responsible entities
- Unclear coordination and mandates of agencies and institutions and lack of a formal coordinating mechanism.
- Need for improved compliance with national and state fisheries and regulations.
- Fragmented policies and regulations for aquaculture development.
- High operation and maintenance costs of existing fisheries and aquaculture-related facilities.
- Lack of critical infrastructure to facilitate development.
- Climate change will impact fisheries and aquaculture.

Strategy

Undertake a comprehensive review and update and implement fisheries and fisheries-related policy and regulatory framework.

Priority Programs and Projects (2023 to 2026)

- Develop and implement data collection protocols for coastal/nearshore and pelagic fisheries, and for aquaculture, implement monitoring, and create data sharing mechanisms and adaptive management feedback loops, with capacity building
- Implement research to develop stock and harvest assessments, market studies and goods-and-services value evaluations, sustainable use parameters, and climate projections and adaptation needs for nearshore, offshore, and invertebrate fisheries, including a better understanding of the fisheries markets, their scale, and their main barriers and drivers
- Update relevant fishery laws, policies, and best practices, including spatial plans
- Strengthen coordination mechanisms that allow for meaningful collaboration between agencies, state governments, and the private sector
- Build long-term institutional capacity to fill critical “Blue Economy” capacity gaps, anticipate emerging needs of the sector, and invest in individuals to effectively lead programs, including investing in extension, capacity building, and training programs for farmers and fishers in fisheries and aquaculture to expand aquaculture production and pelagic fishery production
- Expand engagement and participation in bilateral, regional, and international fisheries dialogues, with regional scaling
- Explore innovative business models or digital marketplaces that may involve both government and the private sector to develop domestic tuna fisheries and aquaculture
- Capacity building to improve enforcement capacity in communities
- Invest in critical infrastructure in the aquaculture and fisheries supply chains, including research capacity to track impacts of climate change, and improve access to loans for private businesses

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Fisheries and Aquaculture Sector Performance Monitoring and Financing Plan Priorities

	Performance Indicators, Baselines, and Targets	Data Sources and Reporting Mechanisms	Assumptions and Risks
National Impact	To help diversify the economy and improve food security by increasing fishery and aquaculture production and food system employment opportunities. (Measured by a reduction in imported foods from 80% of total consumption in 2023 to 60% in 2025).	USDA EconMap fisheries import statistics.	
Sector Outcome	Doubled pelagic fishery production (47.7 mt in 2022 to 100 mt in 2026) and an increase in the diversity of aquaculture production (2 species in 2022 to 4 species in 2026).	Regional fishery & MAFE reports	Distribution and marketing of fisheries catch, and purchase of local catch is supported by a growing private sector.
Ministry and Other Sector Partner Outputs	Increasing the number of plans that use data in adaptive management processes. At least 2 stock assessments (for 1 fishery and 1 aquaculture species by 2026). New Fishery, Aquaculture Policies by 2026. Double the number of pelagic fishing companies (1 in 2022 to 2 in 2026). Double the number of aquaculture farmers (32 in 2017 to 70 in 2026). Stable or increased PNA royalties ($8.5M in FY2018) New cold chain facilities.	MAFE annual reports	The environment for commercial fisheries investment is supportive. Palau commercial fisheries remain viable.

Ministry Inputs and Activities ($) Item	FY24	FY 25	FY26	FY27	
I. Annual Recurrent Budget					Relevant stakeholders participate in policy formulation. Appropriate capacity development programs are available. Appropriate foreign technical assistance is available. Infrastructure feasibility studies are conducted.
I.1. Annual BOF fisheries recurrent budget – local	660,000	660,000	660,000	660,000	
I.2 Other Government recurrent budget (PCC-CRE, PICRC, DFWP, Maritime Security)	Not known				
I.3 Total annual MAFE fisheries grants	Not known				
II. PDP Priority Recurrent Programs					
II.1. Data collection protocols; training, monitoring and adaptive management, database	200,000	200,000	200,000	200,000	
II.2. Research: assessments, market studies, use parameters, and projections and needs	500,000	500,000	500,000	500,000	
II.3. New fisheries and, aquaculture policies, laws, regulations, best practices, spatial plans	150,000	150,000	150,000	150,000	
II.4. Coordination mechanisms between agencies, state governments, and the private sector, MSP Grant	50,000	50,000	50,000	50,000	
II.5. Blue Economy: Capacity building, extension services, training, support.	2m	2m	2m	0	
II.6. Expanded engagement via international fisheries dialogue, with regional scaling	330,000	330,000	330,000	330,000	
II.7. Explore innovative business models	330,000	330,000	330,000	330,000	
II.8. Communities: Improve enforcement in RISL and in PAN sites	300,000	300,000	300,000	300,000	
III. PDP Priority Capital Programs					
III.1 Aquaculture and fisheries supply chain infrastructure (National/State) (excluding dock)	400,000	400,000	400,000	400,000	
III.2 Digital marketplace development and IT support, fisher registration and licensing	100,000	100,000	100,000	100,000	
III.3 Laboratory facilities (ocean acidification, genetic capacity) (PICRC and PCC-CRE)	0	500,000	0	500,000	
III.4 Flood-proofing and storm-proofing of building in low lying areas	1m	0	0	0	
TOTAL	**5.97m**	**6.47m**	**5.97m**	**4.47m**	

- BOF: Bureau of Fisheries, DFWP: Division of Fish and Wildlife Protection, MAFE: Ministry of Agriculture, Fisheries and Environment, MSP: Marine Spatial Planning, PAN: Protected Areas Network, PCC-CRE: Palau Community College Cooperate Research Extension, PICRC: Palau International Coral Reef Center, RISL: Rock Islands Southern Lagoon.

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HEALTH AND HUMAN SERVICES

Goal

Healthy Palau in a healthful environment at a cost affordable to the government and people.

Status and Trends

In recent years, the convergence of improved standards of living and good health services, especially public health services, has led to the effective management of many communicable diseases which in turn has raised life expectancy and reduced infant and child mortality. Lifestyle changes, however, have spawned an epidemic of noncommunicable diseases (NCDs) that threaten to erode long-term gains in life expectancy and require life-long management at significant cost. In 2014-2016 life expectancy at birth was 68.1 years for men and 77.8 for women.[126] The 5 leading causes of death in 2016 were heart disease, cancer, injuries, diabetes, and respiratory diseases.

The government through the Ministry of Health and Human Service (MHHS) is the lead provider of health services operating one 80-bed Belau National Hospital (BNH) in Koror, five strategically located primary care community health centers located in Koror, Babeldaob (Melekeok, Ngarchelong, and Ngaremlengui) and Kloulkubed (Peleliu) and five satellite community health centers in Airai, Kayangel, Angaur, Sonsorol, and Hatohobei. All Palau residents live within a one-half-hour travel time to a primary care facility. In addition to government facilities, there are four private primary care clinics with pharmacies and facilities for ambulatory care and associated ancillary services.

There are three offshore health insurance companies with Palau offices that sell group health insurance to Palau businesses. In support of community health, there are also several independent community-based organizations (CBOs) that have close ties to the MHHS. CBOs are critical in ensuring the health needs of vulnerable populations are understood and service delivery targets are met. CBOs have established relationships within the communities they serve and proven expertise in addressing the social determinants of health - housing, nutrition, transportation, and personal care for older adults and people with disabilities. Some CBOs that MHHS has developed partnerships with include Omekesang, Palau Parents Empowered, Coalition for a Tobacco-Free Palau, and Belau Wellness Center.

The Palau Constitution mandates the government, through the MHHS to provide free preventive health services and subsidized health care for citizens. Because there is adequate-to-generous funding for some activities from U.S. Federal sources, local funds have been earmarked primarily for clinical care for which there is little grant support.

To implement the health mandate sustainably, the Palau Healthcare Fund (HCF) was established in 2010 and consists of two components, individual medical savings accounts (MSA) and a pooled universal social health insurance fund commonly known as National Health Insurance (NHI). These components are funded through mandatory contributions on earned

[126] SPC. 2023. *Statistics for development: life expectancy*. Stat Data Explorer • Vital statistics (pacificdata.org)

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income (2.5 percent of earnings contributed by the employee and matched by an equal contribution by the employer). NHI complements MSA by providing coverage for catastrophic illnesses and off-island referrals approved as medically necessary by a Medical Referral Committee established within the MHHS. The government pays the MSA premiums for unemployed senior citizens and the severely disabled using funds earmarked for this purpose from tobacco taxes. With this, Palau has largely achieved universal health coverage.

HIES data show that less than 2 percent of average household expenditures are for health suggesting that the HCF is achieving financial risk protection.[127] However, even with the HCF, MHHS' accumulated uncollected revenue is reaching $10 million. This shortfall prevents MHHS from hiring more qualified healthcare workers, improving service delivery to all states and rural areas, upscaling information technology and databases, and funding capital investments such as a new hospital facility and, or clinics and housing for expatriate health workers. The Sliding Fee Schedule of 2006 also prevents MHHS from collecting actual costs of service. While prices of medication and services have increased, the patients still pay the same established rate under the fee schedule which does not even cover 50% of the actual cost of service.

MHHS' physician-to-population ratio exceeds global averages and with the private clinic physicians, the ratio is further exceeded. However, there is a shortage of some key medical professionals and a general need for training of other staff. Nurses, specialized physicians, and ancillary workers are professions that always experience shortages. Many health workers are at or approaching retirement age and there is a high rate of outmigration by skilled health workers. This puts a strain on MHHS as it seeks to bridge the gaps. MHHS is planning to revitalize the College of Health[128] program to ensure patient care is not affected while the existing workforce is upskilled, and new health workers are trained.

The MHHS has a mechanism to collect relevant data and establish service levels, but it does not have the expertise and capacity to analyze the data and assess service performance. Assessing service performance can be done by conducting patient satisfaction surveys, doing walkthroughs of problem areas, and collecting feedback from the staff. This helps identify quality assurance and improvement gaps that can be addressed by revision of policies and Standard Operating Practices (SOPs), using newer and more efficient methods, and adjusting patient flow by changing the setup of the clinics or other service areas.

Some of the existing buildings require major capital repairs and rehabilitation to reliably provide health services. The existing buildings do not provide sufficient space for all health sector services and some services must be scheduled to share existing infrastructure. For example, NCD clinics are operated 3 days a week at the BNH Outpatient Department leaving only two days for other clinical services. The MHHS carries out building maintenance assisted by the Transportation and Equipment Department and from time to time, the Bureau of Public Works, and local and outside contractors. MHHS partners with Palau Community College to provide training for maintenance personnel to enhance their skills.

Key Issues

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[127] Government of Palau. 2014. *Household Income and Expenditure Survey*. Ngerulmud

[128] College of Health is an initiative that began in 2011 as the Ministry of Health's internal entity devoted to the educational enhancement of its staff, the community, and potential future employees.

- In common with many other Pacific Island Countries NCDs are now the greatest health concern.[129]
- The current BNH, Angaur Community Health Center, Kayangel Community Health Center, Peleliu Community Health Center, and Southwest Islands community health centers are all located in low-lying areas which may be subject to flooding and temporary loss of use due to climate-related disasters and sea level rise.
- The Ministry plans to further develop the main community health centers in Melekeok and Peleliu into mini hospitals.
- MOH has a 10-year plan to build a new public health and administration building.
- Old medical equipment needs to be replaced and improvements made at the current BNH while work is underway for a new hospital.
- BNH Relocation – A committee has been established pursuant to EO 461 and has met multiple times. Discussions about potential locations and funding sources are in progress but no decisions have been made. Because of the many steps that need to be taken for planning and design, the BNH relocation is unlikely to happen during the current planning period

Health Strengthening Initiatives in Progress

- Project Olangch was launched in November 2022 that includes Tamanu which is the electronic health record system being used in the hospital along with M-Supply that will track medication levels to ensure a continuous supply
- Telehealth systems are being developed in partnership with Taiwan, Japan, New Zealand, and Australia for training, diagnosis, and treatment planning
- A new telehealth/telemedicine equipment and system for specialist consultation with Shin Kong Hospital is being developed through a partnership with Taiwan
- An MRI donated by Japan has been received and positioned inside Radiology Department pending staff training for operations
- Japan has donated a 4-bed Intensive Care Unit to expand the medical ward ICU; operation of the unit is pending additional staff to be able to use it
- Installation of a portable x-ray machine at Central Community Health Center in Koror
- Enhancement of Emergency Radio Communication System with the Southwest Islands to assist with the response to health emergencies completed in December 2022
- JICA support to Bureau of Hospital Service for health system strengthening
- Transition Unit opening in summer 2023 for elderly patients who require 24-hour care
- Additional 6 hemodialysis units under formal bid process to augment existing 12 units
- Development of health equity indicators being finalized by the Health Equity Advisory Group in partnership with ASTHO (Association of State and Territorial Health Officers).

Strategy

Health Systems Strengthening and Improvement: The government is attempting to improve the appropriateness, staffing, management, monitoring, and overall delivery of all health services and to encourage the community to take responsibility for their own health.

Priority Programs and Projects (2023 to 2026)

[129] With almost 38% of adults obese, Palau now ranks #3 on the list of the "world's most obese countries" behind Nauru and the Cook Islands (World Population Review, 2019) – extracted from SDG review.

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Recently, MHHS has focused on two major short-term objectives (2022-2024) that will help bridge gaps in services and build on efficiencies. These are Health System Strengthening (Objective 1) and the Health Improvement Framework (Objective 2).

Objective 1 focuses on strengthening 5 strategic areas namely (i) health workforce development, (ii) health information standards and development, (iii) strategic planning, communications, and reporting, (iv) BNH relocation, MHHS administration, and public health building, and (v) standards, quality assurance and quality improvement.

Objective 2 will identify and prioritize at least ten national-level indicators that reflect and align with Palau's specific health needs and correspond with national government priorities.

- Replacement of other medical equipment including a new incinerator, an energy-efficient lighting system, new plumbing systems, a radio center, major medical equipment, and major general equipment
- Access to transportation services for patients who are homebound

Post PDP

- Priority Capital Programs are a new hospital at an estimated cost of $120 million and a new Public Health facility at an estimated cost of $25 million.

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Health Sector Performance Monitoring and Financing Plan Priorities

	Priority Performance Indicators, Baselines and Targets	Data Sources and Reporting Mechanisms	Assumptions and Risks
National Impact	Healthy Palau in a healthful environment at a cost affordable to the government and people.	SDGs. WHO Palau and Pacific reports.	
Sector Outcome	Decrease premature mortality by 2026	National Health Profile, 2013; Hybrid Survey 2016 and 2023; vital statistics	There will not be another pandemic or similar event during the Plan period.
Ministry Outputs	By 2026, all users know how to access services provided by MHHS. A patient-centered approach is applied where all services are available at each visit to save time and be more effective in capturing diseases early. Realign primary care to support population health. Client-patient satisfaction surveys are available at 100% of service delivery points and baseline assessment is conducted by QA/QI coordinator. College of Health is developed to oversee professional development initiatives and licensure requirements and ensure minimum core competency standards are completed for 100% of healthcare workers. Workforce Wellness Program initiated with dedicated staff to ensure program continuity. Ministry-wide Health Information System is 100%. Feasibility assessment for privatizing support services will be completed. by 2024. An integrated system of care will be instituted to support IPV and MCH populations.	EHR, NCD Hybrid Survey, STEPS Survey, HIS, Licensure Board, MHHS Databases, BNH Feasibility Study, Private Clinic data and utilization reports, BNH utilization reports	Palauans want to live longer & healthier. Palauans will take ownership of their health by seeking services to improve their health & paying bills. The health workforce will expand. BNH will withstand the impacts of climate change pending relocation. There will not be a direct hit by a typhoon.

Ministry Inputs and Activities ($)	FY 24	FY 25	FY 26	FY27	Assumptions and Risks
I. Annual Recurrent Budget					
I.1Annual MHHS - Local	12,330,780	12,947,319	13,594,685	14,274,419	Palau will continue to be eligible for US Federal Health Grants in the new Compact. Administration & OEK will continue to prioritize health. Out-migration of health workers will be reduced.
I.2. Annual MHHS– Federal	9,360,986	9,829,036	10,320,487	10,836,512	
I.3 WHO funding.	299,430	314,402	330,122	346,628	
SUB TOTAL	**21,991,196**	**23,090,757**	**24,245,294**	**5,457,559**	
II. PDP Priority Recurrent Programs					
II.1 College of Health	75,000	50,000	50,000	50,000	
II.2 BNH Authority Feasibility Study	200,000	0	0	0	
II.3 Feasibility, cost, design studies for new hospital and new PH building	50,000	50,000	50,000	50,000	
III. PDP Priority Capital Programs					
III.1 Major hospital equipment [a)]	2,400,000	50,000	500,000	0	
TOTAL	**24.72m**	**23.24m**	**24.85m**	**25.56m**	

a): Water cooling system at $500,000, Water sprinkler system at $800,000, Water filtration system at $350,000, Hyperbaric chamber $200,000, Oxygen generation plant $500,000, Medical waste incinerator $40,000, Laundry equipment $25,000, Kitchen equipment $25,000, Laboratory to allow for CLIA certification $100,000, and Cardiac catheterization laboratory $500,000.

BNH: Belau National Hospital, HIS: Health Information System, IPV: Intimate Partner Violence, MCH: Mean Corpuscular Hemoglobin, MHHS: Ministry of Health and Human Services, PH: Primary Healthcare, SDGs: Sustainable Development Goals, STEPS: STEPwise approach to NCD risk factor surveillance, WHO: World Health Organization,

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HOUSING

Goal

To provide "affordable" housing to all Palau residents by the year 2040.

Status and Trends

Providing adequate housing for Palau's population will continue to be a critical issue. Meeting the housing needs of all types of households at a range of income levels is essential to creating a country that is livable for all residents, economically prosperous, and environmentally sustainable.

Palau's housing sector has experienced great highs and lows that have benefited some and created and exacerbated hardship and inequalities for others. The instability of the housing sector in the past decade underlines many of the challenges ahead. The causes of instability include the quick increase in housing prices due to increased construction costs, the increase in real estate sales to foreign investors that have led to historic increases in rents and home prices, and the return of land to original owners.

In 2019, the National Housing Commission (NHC) was created to administer the Housing Development Loan Project (HDLP) and address issues relating to the development of residential housing in Palau. This includes coordinating services between the National Development Bank of Palau, Palau Housing Authority (PHA), the States, relevant agencies, and citizens, along with adopting a National Housing Policy.

The NHC's purpose is set forth at 34 PNC § 7103(b) as follows:

- Find a solution to housing problems by making homes available at an affordable price and increasing the supply of housing.
- Coordinate the development of green communities, revival of old villages, and establishment of new housing subdivisions.
- Support the construction of affordable multi-family dwellings to provide housing for short-term periods.
- Provide access to affordable housing for citizens in need, prioritizing displaced citizens and first-time homeowners.

Housing demand: Despite the stagnant population, demand for housing remains high throughout Palau. Current demand is driven by reduced household size and a desire for members of a household to live independently[130]. Additional demand is driven by current policies of the rural and outlying communities to increase local populations by increasing housing stock. The immediate priority is to meet the needs of the most vulnerable, while also building a sense of community. This will require investment in housing subdivisions on public lands. Environmental Quality Protection Board (EQPB) permits for residential construction increased nationwide from 77 permits in 2012 to 179 permits in 2018 (footnote 130).

[130] ADB. 2020. Koror-Babeldaob Island Resilient Urban Development Strategy and Action Plan Volume 1: Main Report and Volume 2: Appendices. Manila.

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Selecting sites for housing development can be difficult as most services are based in the Koror-Arai urban area with limited services for the rest of Babeldaob and outlying communities. Transportation options can also be a problem for low-income and other vulnerable populations who need to access services, specifically access to social infrastructure facilities such as health and education.

Wages and incomes have not been growing as fast as housing prices, making it harder to afford real estate in Palau, especially for lower-income and younger households. A key issue for Palau has been the provision of affordable housing for Palauans. While figures are not available on the number of individuals and families needing housing or displaced due to land settlements, anecdotal evidence would suggest that there is a large need for affordable housing.

Social housing support to those earning less than US$35,300 per annum is being provided by the Palau Housing Authority (PHA). The programs, arranged through low-interest 30-year loans, include (i) new housing construction, (ii) housing renovation and, or extension, (iii) home repair and improvement (from fire or water damage), (iv) emergency housing reconstruction, and (v) water harvesting and storage. For those above this earnings threshold, access to loans is available through the National Development Bank of Palau (NDBP).

Figures obtained from the NDBP and PHA show the following demand for housing loans as of the end of December 2022 (Table 20).

Table 20: Demand for Housing Loans

	Pipeline customers – those who have paid an application fee and are ready to start the loan process or have had a loan approved but home not yet constructed.	Prospect customers – those who have yet to pay the application fee but have indicated an intention to borrow.
NDBP	55	11
PHA	60	40

Housing supply: A significant limitation impacting housing is the supply of land available for development. There is a persistent lack of available land for lease or purchase. This is further exacerbated by land tenure issues including delays in settling land disputes and issuance of Certificates of Title for settled disputes. This is further complicated by the lack of a comprehensive land development strategy and zoning regulations that identify land suitable for housing, commercial and agricultural development.

The development of affordable housing on Babeldaob and the outlying communities requires planned housing development and must be supported by adequate and accessible basic infrastructure such as roads, water and sanitation, solid waste management, electricity, telecommunications, and transportation. Infrastructure costs are passed on to the potential homeowner. Frequently these costs are financially burdensome, and this puts the cost of the home outside of the homeowner's ability to pay or borrow to pay.

Any housing development needs to be cognizant of Palauan culture and should include, within the housing development plan, cultural facilities and, or restoration or upgrades to existing cultural sites.

The rising cost of construction materials is also contributing to the current housing problem. NDBP's research shows that between 2005 and 2023 prices for construction materials

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such as base, course, gravel, sand, ready mix, rebar, cement, and hollow blocks rose by an average of 166%. The PHA's assessment of construction materials for a 2-bedroom concrete residential home indicated an increase in the cost of construction from 2021 to 2023 by at least $10,000.00. There is a significant limit to the capacity within the country to develop land and housing projects including a lack of qualified building contractors.

There has however been consistent growth in the construction of new occupancy units, mostly houses. Every State has identified and or begun construction of housing subdivisions on public land to create more housing stock and attract more residents to come home. There have also been some private-public partnerships to create more housing. The number of homes targeted varies by State, with those communities closer to Koror planning for 100 or more homes in the next ten years. On average, communities would like to encourage steady growth of 5 to 10 homes per year.[131]

Palau is vulnerable to climate change impacts such as stronger typhoons with associated storm surges, increased intensity of short-term rainfall, prolonged drought periods, and increased temperatures and acidity of the sea and ocean.[132] The majority of the states along the east coast of Babeldaob and the outlying islands are exposed to storm surges. Human settlements located on the low coastline are vulnerable to storm surges from increased storm events including a high risk of inundation. As sea levels rise impacted communities in coastal areas will need to be protected, this may include relocation to higher ground.

Palau is also prone to drought, and this can be exacerbated by El Niño events, which tend to occur on a 7-year cycle but are unpredictable. At least 88% of the land area on Babeldaob is at a slope of 12% or greater with a medium to high risk of slope failure following intense rainfall. The increased intensity and duration of rainfall attributed to climate change is a major contributing factor. Palau's high rainfall and highly erodible soil also make infrastructure design and construction a challenge (footnote 130).

Developed areas are now overcrowded and development is being forced to build over mangroves and shorelines. While these solutions can be productive in supporting the housing needs of Palau, if not managed properly they may contribute to the further deterioration of the environment.

Strategy

The housing market model currently employed places almost the entire burden of home building on the individual homeowner. Aside from central roads, most potential homeowners must not only secure clear land tenure but also design and build their own homes, access roads, and septic tanks and pay for an extension of the power system; and where available, extend public water infrastructure or include water tanks and purification systems. Reducing this burden on prospective homeowners and easing the ability to move home is an immediate priority for all communities. Some factors can be shaped by public policy, while others are largely beyond local control. A policy planning process is needed to raise awareness of housing issues and to identify coordinated strategies, policies, and actions to ensure that the housing needs of Palau's population are met.

[131] See the environmental pillar and sector for further discussion about sewage needs associated with new homes.

[132] https://cpo.noaa.gov/Divisions-Programs/Earth-System-Science-and-Modeling/MAPP/ArtMID/6170/ArticleID/2061/Palau-Faces-Stronger-Storms-Hotter-Weather-and-Threats-to-Ecosystems-Says-New-Pacific-RISA-led-Climate-Change-Report

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A comprehensive housing assessment is required, accompanied by a housing policy that identifies existing housing inventory, land suitable for housing including subdivisions, homes likely to be affected by climate change, and new building technologies thus ensuring Palauan access to safe and affordable homes. This comprehensive assessment shall also explore and assess the applicability of multi-dwelling residences, condominiums, and other accommodations to alleviate the increasing gap between the demand for affordable housing and available supply. The housing policy, considering the findings of the assessment, shall elaborate on the type of housing to be developed, the priority locations for the developments, the funding sources, and a timetable for the developments to be completed.

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Housing Sector Performance Monitoring and Financing Plan

	Priority Performance Indicators, Baselines and Targets	Data Sources and Reporting Mechanisms	Assumptions and Risks
National Impact	More equitable social and economic status and growth.	Estimates of the distribution of GDP from USDAEconMap.	
Sector Outcome	Affordable housing provided to all Palau residents by the year 2040.	Annual reports of PHA and PHC.	The economy continues to recover, and other social advances are made.
Outputs	The comprehensive housing needs assessment is completed by the end of 2024. The comprehensive housing policy is completed and approved by the end of 2025. PNCA 34 is reviewed and revised by the end of 2024. Comprehensive land use plans are completed for all States by the end of 2025. Identify areas and homes that are likely to be impacted by climate change are identified, compensation legislation and policy developed, and lands suitable for housing subdivisions for impacted individuals identified by the end of 2025. New construction materials and methodologies investigated, and an education strategy developed and implemented by the end of 2026. Infrastructure to support housing and neighborhood development is constructed each year in Babeldaob. Pilot housing subdivision is constructed in Babeldaob in 2026 in whichever state ready to proceed.	Annual reports of: PHC MPII MOF MAFE Bureau of Lands and Survey NDBP PHA, and CIP.	The land is made available for all subdivisions. Land, housing, and compensation policies are approved by the government.

Inputs and Activities ($)	FY 24	FY 25	FY 26	FY27	Assumptions and Risks
I.1 Annual PHA and NHC Recurrent Budget	188,000	194,000	200,000	206,000	Required international expertise can be secured. All communities continue to cooperate. Construction industry fully cooperates. Funding for regional infrastructure and Babeldaob subdivisions is forthcoming. Continued GEF funding. Cost of construction continues to rise.
II. PDP Priority Recurrent Programs					
II.1 Conduct a comprehensive housing needs assessment	70,000	0	0	0	
II.2 Establish an effective and comprehensive housing policy	0	50,000	0	0	
II.3 Review and revise PNCA 34	80,000	0	0	0	
II.4 Complete comprehensive land use plans for all States (GEF 6)	100,000	100,000	0	0	
II.5 Develop policy to protect homes in communities likely to be impacted by climate change	0	50,000	0	0	
II.6 Investigate and introduce new construction materials and methodologies, develop and implement education	0	0	50,000	0	
II.7 Prepare and adopt subdivision planning standards and building code	0	80,000	0	0	
II.8 Increase levels of professionalism in the construction sector by developing and enacting legislation	0	50,000	0	0	
III. PDP Priority Capital Programs					
III.1 Develop regional infrastructure to support housing and neighborhood development in Babeldaob	0	1m	1m	1m	
III.2 Pilot housing subdivisions in Babeldaob	0	0	3.5m	0	
TOTAL	**438k**	**1.52m**	**4.75m**	**1.0m**	

CIP: Capital Improvement Project; GDP: Gross Domestic Product, GEF: MAFE: Ministry of Agriculture, Fisheries, and the Environment, GEF6: Global Environment Facility, MOF: Ministry of Finance, MPII: Ministry of Public Infrastructure and Industries, NDBP: National Development Bank of Palau, NIIP: National Infrastructure Investment Plan, NHC: National Housing Commission, PHA: Palau Housing Authority, PHC: Palau Housing Commission, PNCA34: Palau National Code chapter 34..

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INFORMATION AND COMMUNICATION TECHNOLOGIES

Goal

The goal of the Information and Communication Technologies (ICT) sector is to develop a resilient, sustainable, accessible, competitive, collaborative, and disaster-prepared service with 100 percent coverage by 2026.

Status and Trends

Palau's ICT sector is small, servicing a small market. However, the growth of the sector is possible in Palau, boosting economic activity and employment. The sector consists of one SOE, the Belau Submarine Cable Corporation (BSSC), a public corporation, the Palau National Communications Corporation (PNCC), two private companies, Palau Telecom and Palau Mobile Communications Inc and the Bureau of Communications.

ICT businesses (i.e., businesses that depend on ICT connectivity as their primary business technology) tend to be dependent on 24/7/365 connectivity. Such businesses would be wary of establishing in Palau because, with a current single submarine cable connection (PC1), an outage would result in very limited (via satellite), or no available international bandwidth for up to a month or more, depending on repair times. Accordingly, new ICT businesses will likely only begin to consider Palau once PC2 is in place. This is expected in 2025.

The ICT sector is also foundational to development in all other sectors. Connectivity is now an essential service in most societies and could be considered in the same category as water and power. Support for development in other sectors is the most important function of the Palau ICT sector in the context of the Palau Development Plan.

Due to the small market, infrastructure duplication of any significance in Palau should be minimized. The theme of the 2017 Telecommunications Act – sharing of core infrastructure with competition at retail – remains valid but will need to be revisited to accommodate new factors[133] that have emerged in the last five years. The main obstacle to realizing the sector goals is the delivery of cost-effective connectivity in the more remote areas of Kayangel, Peleliu, Angaur, and the South-West Islands. This may require re-addressing the funding of universal service. Regulation is in the early stages in Palau. It is important that limited regulatory resources are directed toward areas of greatest need.

To support ICT sector development, regulatory resources should be focused on

- Regulation that encourages fair competition on a commercial basis for the improvement of telecommunications services for all of Palau and encourages expansion via a revitalized Universal Service Obligation (USO) process. This would require a study to define the USO areas. In some USO areas, Retail Service Providers (RSPs) may not be able to operate economically even if capex is provided through grants. Here the solution may be subsidies for certain USO customers.
- Protection of critical national infrastructure, by identifying critical assets, and implementing appropriate processes, regulations, and legislation. Distinguish between "Call before you dig", and accidental as opposed to reckless and intentional damage.

[133] The failure of the USO mechanism envisaged in the 2017 Act; The negative impact on market growth from COVID-19 and the availability of grant funding for Fibre to the Home (FTTH).

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- Re-framing of regulations and legislation to accommodate the dynamic changes in the sector e.g., where attention is monetized by “over the top”, often global, providers who make no contribution to the costs of local networks or to local tax revenues.
- Creating a legal and regulatory environment that encourages investment in critical telecommunications infrastructure. Support the industry by lobbying for an exemption on all taxation for the import of telecommunications network equipment.
- Supporting equitable conditions for the adoption of technology and innovation in Palau for all citizens regardless of their socio-economic status, through the removal of all taxation on the import and sale of consumer telecommunications equipment.

Strategy

- Resilience – Development of the Belau Submarine Cable Corporation, (BSCC) core network to eliminate single points of failure and deliver cost-effective high-speed connectivity (high speed in this context means up to 100 Gbps symmetrical fiber connections - i.e., same speeds for upload and download).
- Sustainability – Efficient use of power and fuel is one of the main concerns for the sector in the context of sustainability.
- Capable Customer Access – Universal, cost-effective, high-speed connectivity (high speed in this context means 25 / 5 Mbps and beyond symmetrical mobile and fixed connections - i.e., same speeds for upload and download). The longer-term objective is to build a network capable of 100 / 25 Mbps customer access where practicable.
- Mobile Coverage – 100% Long Term Evolution (LTE) also known as 4G population coverage by 2026. Required expansion of infrastructure to be partially funded by USO via a tender process. The ICT sector recommends Palau should be served through multiple physical mobile networks for resilience. This does not preclude the colocation of equipment on towers where practical. Currently, all three licensed Palau Retail Service Providers (RSPs) operate mobile networks, providing a solid base for this approach.
- Competitive Retail Market – A market structure that enables equitable competition between RSPs, to maximize benefits to Palau consumers.
- Shared Core Infrastructure – Maximise the value of core network infrastructure by collaborative planning and efficient sharing of resources.
- Preparedness – Industry-level support for Disaster Preparedness coordinated via NEMO. Cell Broadcast for all mobile operators by 2025 to enable rapid dissemination of critical safety information.

Table 21: Priority Programs and Projects (2023 to 2026)

Project	Responsible	Est Cost	Financing	Delivery
100 Gbps Babeldaob Loop	BSCC	$6M	In place from ADB, BSCC	H2, 2023
PC2 (second submarine cable)	BSCC	$30M	In place from AIFFP, JBIC, SMBC	H1, 2025
Upgrade existing mobile network	PNCC	$1m	Self-funded	H2, 2023
Upgrade and expand mobile network	PNCC, PT, PM	$20M+	Yet to be resourced	
Fiber to the Premises	PNCC	$35M	In place from RUS	H2, 2026

ADB: Asian Development Bank, AIFFP: Australian Infrastructure Financing Facility for the Pacific, BSSC: Belau Submarine Cable Corporation, H1: first half, H2: second half, JBIC: Japan Bank for International Cooperation, PNCC: Palau National Communications Corporation, PT: PT Waves/Palau Telecom, PM: Palau Mobile Communications Inc., RUS: RUS: Rural Utilities Service (of the United States of America).

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ICT Performance Monitoring and Financing Plan Priorities

	Key Performance Indicators	Data Sources and Reporting Mechanisms	Assumptions and Risks
National Impact	ICT supports social and economic growth and development. ICT supports, and in turn is supported by, tourism industry recovery, and increased economic activity in other sectors. Through improved ICT services and access, increased social sector activity is enabled in education, health, and other social sectors.	USDA EconMap reports, IMF Article IV and ADB statistics	
Sector Outcome	Expansion and improvement of ICT services by the two telecommunications SOE's (PNCC & BSCC), the Government and the private sector. Nationwide FTTP & Mobile Broadband coverage by 2026 ensuring equitable access to ICT services for all Palauans regardless of geographic location.	PNCC & BSCC reports to the BOC	Expansion of infrastructure largely supported by grant funding and, or self-financing. Increased economic activity is required for long-term sustainability. The law on USO is enforced and nationwide coverage is delivered through a sustainable 'Play or Pay' approach to ensure access for all Palauans.
Sector Outputs	Provide extended access to off-island capacity to all operators via the Babeldaob Loop - to be in service by the end of 2023. Provide resiliency and redundancy of off-island capacity. Currently, PNCC operates satellite capacity as emergency backup connectivity in the event of a submarine fiber break on the PC1 cable. The PC2 (second cable) to be in service by mid-2025 will ensure full off-island redundancy. Alleviation of congestion in Koror & Airai. Despite competition bringing multiple networks to Koror/Airai, aging infrastructure combined with increased demand for mobile data leads to congestion in certain parts of Koror/Airai. PNCC will upgrade its current 4G network in these areas by end 2023. Each mobile network operator to expand coverage to ensure that 4G coverage is extended to all RoP by the end of 2026. Fast, reliable fixed-line broadband services to every home, business, and Govt. building in Palau through PNCC's Fiber to the Premises (FTTP) project. FTTH is to be rolled out throughout RoP by the end 2026. Increase ease of access to Government services via Government Services Portal. Increase the efficiency of tax collection process via Tax Online system. Protect the data of citizens and businesses via National Cybersecurity Policy. Provide regulation and framework for punishment of illegal activity online in Palau via Cybercrimes Act. Full rollout of the National Financial Management System. Increase efficiency, volume and value of customers collection via Customs Single Window Project (ASYCUDA)	BSCC report to the BOC PNCC report to Bureau of Communications BoC reports to RoP PNCC report to Bureau of Communications ISSS report to Minister of Finance	BSCC can connect to the main trunk through partner Trans-Pacific Networks (TPN) by Q2 2024. Full funding for nationwide coverage is not yet secured. USO enforced. Time operating dual copper / fiber networks minimized to reduce cost

ICT Sector Inputs and Activities Item ($)	FY 24	FY 25	FY 26	FY27	Assumptions and Risks
I. Annual ROP ICT Department Recurring Budget	0.29m	0.29m	0.29m	0.29m	Capital expenditure is secured.
II. PDP Priority Recurring Program					
II.1. NEMO funding for Siren Early Warning System	0.1m	0.1m	0.1m	0.1m	
III. PDP Priority Capital Programs [a]					
PNCC					
III.1. FTTP $35m Grant Funding Secured [b]	All projects are privately funded.				
III.2. Mobile Network Licensing / Upgrades (PNCC Existing)					
III.3. PNCC Mobile Network Replacement / Expansion [c]					
BSCC					
III.4 PCS second cable project	All projects are privately funded.				
III.5 Miscellaneous capex					
TOTAL	**0.39m**	**0.39m**	**0.39m**	**0.39m**	

a) All capital programs are privately funded.
b) Project commences in FY23 with estimated $6m spend.
c) Multiple funding sources identified through US Treasury (Capital Projects Fund), USTDA (United States Trade & Development Agency), Australian Department of Foreign Affairs & Trade and the Quadrilateral Critical Emerging Technology Working Group. As of writing, the following are secured: $2.6m of US DOI (Department of the Interior) funding and USTDA funding of $870k for Technical Assistance.
ASYCUDA: Automated System for Customs Data, BOC: Bureau of Communications, BSCC: Belau Submarine Cable Corporation, FTTH: Fibre to the Home, ICT: Information and Communications Technology, ISSS: Information Systems Support Service, PNCC: Palau National Communications Corporation, PT: PT Waves/Palau Telecom, PM: Palau Mobile Communications Inc., ROP: Republic of Palau, RUS: Rural Utilities Service (of the United States of America)

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JUSTICE AND PUBLIC SAFETY

Goal

To work in partnership with the community to provide quality preventive and responsive policing and safety services.

Status and Trends

The Ministry of Justice (MOJ) is responsible for providing legal support to the executive and public law enforcement. Its mandate can be found in Title 2 of the Palau National Code (PNC) §105. The MOJ works to protect public peace and safety, investigate, combat crime, and prosecute and rehabilitate offenders. The MOJ acts as an overseer of justice in the Republic, coordinating and supporting its various subdivisions in their mandates towards their joint goal of law enforcement. The MOJ houses the Office of the Attorney General, the Bureau of Public Safety (BPS) (which in turn houses the Divisions of Patrol, Maritime Security and Fish and Wildlife Protection, Fire and Rescue, Juvenile Justice, Transnational Crime, Criminal Investigation, and Corrections), and the Office of Professional Standards.

The MOJ's mandates include (i) providing for the safety and security of the public, (ii) the monitoring, control, surveillance, and security of Palau's maritime boundaries (iii) the protection of endangered species and natural resources (See Environment Sector), (iv) investigating and prosecuting crime and facilitating justice within the Republic, (v) providing victim protection and support services, (vi) acting as a first responder to fires and emergency situations, and (vii) ensuring the integrity and professional conduct of public officials. Emerging issues are tackling threats of transnational trafficking in persons and illicit substances.

The MOJ further recognizes the need to build a lasting foundation to cultivate the public's confidence and trust in its law enforcement infrastructure and processes. The MOJ is developing standard rules and operating procedures while building a centralized law enforcement complex. Specifically, the MOJ plans to rehabilitate the current Koror Jail and BPS administration building into "BPS Central", which will serve as a law enforcement center with officer training and support facilities where members of the public can seek a variety of police services in a secure, central location. The MOJ also plans to establish a regional maritime training center within the existing compound of Marine Law in Malakal. The purpose of this training center is to access timely training relevant to the needs of Palau and the region, build a stronger marine law enforcement force within Palau as well as the region, and strengthen border protection.

While there are two substations (one in East Babeldaob, and one in West Babeldaob), BPS's main facilities are in Koror and most operations are primarily focused on Koror and Airai. Due to constraints in personnel and equipment, the Ngardmau substation only hosts a Fire and Rescue Unit while the Melekeok substation in the east hosts a Patrol Unit. This means that cross-responses from the east to the west and vice versa are necessary depending on the services required and this results in slower response time. The country has a natural hazards early warning system, however, with limited police presence in Babeldaob coupled with an unreliable communication network relay, response time to hazards can be delayed.

The Division of Fire and Rescue relies on limited fire hydrants in Koror and Babeldaob. In western Babeldaob, only two states have working water hydrants while the limited hydrants in eastern Babeldaob are outdated and usually require adaptors to connect to fire tankers. Fire

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emergencies have demonstrated a slow response time due to traveling distances between fire hydrants and response sites. There were two procurements of fire tankers in 2018 and 2019 through grant assistance. However, more than half of the fleet of fire emergency vehicles are secondhand and are overdue for replacement. There is also limited space to house fire and ambulatory service vehicles.

The Koror Jail is currently beyond its maximum capacity, housing 88 inmates. A 2016 assessment linked a high risk of escapes and prison contraband to deteriorating infrastructure. Personnel shortage and accountability of correctional officers were also cited as major factors in operational deficiencies. Health and safety risks posed by limited infrastructure were also highlighted in the 2016 assessment. Short-term infrastructure improvements including fencing and the addition of CCTV equipment were made to the Koror Jail and as part of the government's strategy, a plan for a new and relocated correctional facility began to be implemented. The new facility is in Ngchesar and is still under construction. Funded through a piecemeal approach, the completion of the new prison depends on further budget appropriations.

Grant aid from Japan for up to 500 million yen (approximately $4.8 million) recently provided the government with a set of equipment to build two monitoring stations in Ngeremlengui and Malakal. These new stations will help Palau to improve its capacity to monitor main sea passages and coastal areas. As a result, it is expected that Palau will be able to address illegal fishing and shipping accidents.

Key Issues

- Babeldaob and outer island response times need to be reduced. There is Inadequate police presence in outlying states.
- Fire tanker/engine fleet and fire hydrants are limited and cause slow response times risking public safety.
- The Fire and Rescue Division has limited space to house its fleet of emergency vehicles.
- Koror Jail is overcrowded and deteriorating.
- The Division of Corrections still has insufficient personnel. At any given shift, the ratio of correctional officers to inmates is between 1:18 to 1:30. Recruitment is challenging as the pool of interested applicants is limited.
- A 2016 report cited health concerns that stemmed from mosquitos, sewer malfunctions, limitations on potable water, and the lack of personnel to escort inmates to hospital appointments as concerns.
- The new prison needs to be completed but there is a lack of additional funding due to piecemeal appropriations.
- The Division of Fire and Rescue facilities need an upgrade.
- Lack of resources to fully address transnational crime, particularly Narcotics and Human Trafficking. The current K9 Program needs funding to enable stronger detection of narcotics at our air and seaports as well as postal services.
- The need for repair and maintenance of offices and facilities.

Strategy

The government intends to improve the police coverage, staffing, management, technology integration, and overall efficiency and effectiveness of carrying out justice in the Republic from proactive intervention and community policing to investigations, case management,

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and prosecution of crime through adequate and ongoing training and education, standardized investigation and reporting processes, and close partnerships within MOJ.

Priority Programs and Projects (2023 to 2026)

- New systems training
- Further establishing and standardizing performance metrics
- Substation renovations
- Offices' re-equipment
- Expanding substations to include both police units and fire and ambulatory services to ensure consistent response times in all parts of Babeldaob, including the provision of vehicles and equipment.
- Additional fire tankers in Koror and Babeldaob to replace old fire engines.
- The fire hydrant system needs to be updated to ensure faster refill and response time.
- Additional capital to complete the new prison.
- Establish a parole officers' program to ensure the rehabilitation of inmates and to reduce recidivism.
- Nutrition for inmates
- Strengthening of the K9 Program
- Police radio and maintenance
- CCTV coverage for key areas that do not have CCTVs, especially in Koror and Airai

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Justice and Public Safety Performance Monitoring and Financing Plan Priorities

	Priority Performance Indicators, Baselines and Targets	Data Sources and Reporting Mechanisms	Assumptions and Risks
National Impact	Secured and stable environment supporting social, cultural, environmental, and economic growth and development.	World Bank Governance Indicators:	
Sector Outcomes	All communities and persons in the Republic of Palau will experience lowered crime and recidivism through adequate police presence by 2026.	Annual BPS Report. Pictures of outreach/ results of surveys. BPS records	No new externally imposed threats to domestic public safety.
Ministry Outputs	Equitable and timely policing services provided for all communities of the Republic as evidenced by: Decreased average response time to rural communities in 2026 compared with 2022. Rise in public trust as measured by community engagement during police events in 2026 as compared to 2022. Higher numbers of police officers holding post-high school degrees comparing 2026 with 2022. Capture intake (reports), investigations, and prosecution data and create and make statistics public to maintain transparency and public accountability. The baseline of no published data and statistics, the goal of annually published statistics by 2026. MOJ offices and facilities are either repaired or replaced to provide an optimum work environment by 2025. Increase inspections and surveillance of our ports through cross-utilization of our K9 program and to increase the number of officers trained as K9 Handlers. Having a suitable Division of Corrections in place with proper rehab programs in place.	BPS Annual report PCC Enrollment list of cohort members MOJ Annual Report	Political, State and community support for higher police presence.

Inputs and Activities ($) Item	FY 24	FY 25	FY 26	FY27	Assumptions and Risks
I. 1. Annual BPS Recurrent Budget	**3,947,000**	**4,065,410**	**4,187,372**	**4,312,993**	Well-equipped and educated officers will result in more efficient and effective policing.
II. PDP Priority Recurrent Programs					
II.1 Police Officers Continuing Education Programs [a]	100,000	100,000	100,000	100,000	
II.2 Police Academy [a]	100,000	100,000	100,000	100,000	
II.3 Refresher training [a]	50,000	0	0	50,000	
II.4 Statistics Program [a]	0	20,000	20,000	0	
II.5 K9 Program	150,000	150,000	150,000	150,000	
II.6 Parole Program	60,000	60,000	60,000	60,000	
II.7 Anti-Human Trafficking Unit	60,000	60,000	60,000	60,000	
III. New Construction, Office Repair, capital purchase [a]					
III.1 Office Repair (DFR)	250,000	0	0	0	
III.2 Fire Hydrants	60,000	0	0	0	
III.3 Police Radio and Maintenance with purchase of equipment	95,000	5,000	5,000	5,000	
III.4 Ambulance	300,000	0	0	0	
III.5 Complete construction of and furnish new Prison in Ngchesar	2,500,000	0	0	0	
Total	**7.67m**	**4.56m**	**4.68m**	**4.84m**	

a PDP Core Group estimates. BPS: Bureau of Public Safety, MOJ: Ministry of Justice, PCC: Palau Community College.

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SOLID WASTE MANAGEMENT

Goal

A clean and safe Palau through solid waste management (SWM); developing and implementing a comprehensive waste management system with the 3R+Return Policy[134] by employing sustainable solutions consistent with traditional and cultural values.

Status and Trends

Based on a 2019 survey under the Japanese Technical Cooperation Project for Promotion of Regional Initiatives on Solid Waste Management in Pacific Island Countries Phase II (JPRISM II) project, the unit generation rate of household waste in Koror is .682kg/person/day and unit generation rate of municipal solid waste (MSW) is 2.6kg/person/day. Koror State generates approximately 30 tons of MSW/day 26% from households and 74% from "other than household". The recycling rate to total generation waste amount is 11.2%. For Babeldaob States, household waste generation is 3.35 tons per day, the unit generation rate is .640kg/person/day and the recycling rate is 23%. There is no data for the remote islands.

The proximity of Palau to Asia and other consumer societies has contributed to the country's significant change in consumption and waste generation. The country is now confronted with substantial waste management issues that need to be addressed in the immediate to short-term period. This is further exacerbated by limited land, resources, institutional and human capacity, as well as a vulnerability to climate change.

Waste collection is a State Government responsibility. Recently, the Koror State Government (KSG) started implementing a new system for collecting waste from segregation stations. Households and institutions such as schools, are required to segregate their waste. Eventually, once waste segregation stations are established throughout the state, garbage collectors will only pick up solid waste from these stations. Some residents and businesses transport their own rubbish to the landfill.

The national government through the Solid Waste Management Office of the Bureau of Public Works (SWM- BPW) is responsible for the management of the M-dock landfill in Koror. Koror's landfill, known as the "M-dock," is the country's largest waste disposal facility. The M-dock has been in operation since the 1970s and is in an area of shallow reef and mangrove wetland, and near residential areas and tourism facilities. It covers an area of about 13 acres. Previously, M-dock was operated as an open dumpsite, which polluted the surrounding marine environment because of leachate run-off. With support from the Japan International Cooperation Agency (JICA), M-dock was rehabilitated over the period 2005 to 2008 into a semi-aerobic, "Fukoka-method" landfill. Others are operated and maintained by State Governments. Only M-dock landfill in Koror and the new national landfill in Aimeliik are designed to minimize environmental impact. M-dock landfill has 2 years remaining capacity with 25 years for the new national landfill. All other dumpsites are subject to closure soon. Alternative sites have been identified for new landfill site development. The main hospital has a high-temperature incinerator to burn medical waste. All the open dumpsites in the country could potentially contaminate freshwater open reservoirs and groundwater.

[134] Reduce, Reuse, Recycle

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Legislation governing solid wastes includes the Environmental Quality Protection Act of 1981, associated solid waste management regulations under this act which became effective in 1996, and the Recycling Act (2006). The Ministry of Public Infrastructure, Industry, and Commerce, through the BPW, has the responsibility for SWM infrastructure planning, public awareness of SWM issues, and the operation and management of the national landfill. The Environmental Quality Protection Board is responsible for the enforcement of regulations on solid waste storage, collection, and disposal. The EQPB is also responsible for issuing licenses to establish, modify, or operate solid waste disposal facilities. In addition, the Division of Environmental Health deals with issues related to public health and safety.

The National Solid Waste Management Strategy and its action plans and the manual for landfill operations and maintenance have established service levels for SWM.

The construction of the new national landfill in Aimeliik State has been completed and a ribbon-cutting ceremony was held on November 19, 2020. Heavy equipment, tools, and office equipment will now be moved to the new landfill site. This project was funded by Japan's grant aid program. The total land area is 20 acres. Although the estimated lifespan is 25 years, increasing recycling activities will increase the lifespan significantly beyond this. The landfill operations and management were moved to the national landfill in Aimeliik State in February 2021.

BPW is in the process of outsourcing the waste collection service for Babeldaob States. Bid proposals have been evaluated and submitted to the contracting officer with a recommendation to award. This contract will serve all Babeldaob households and public schools by collecting their solid waste and disposing of them properly at the new landfill site in Aiemliik. The Babeldaob States' dumpsites that are hazards to the environment can then be closed.

A revolving fund finances the Babeldaob waste collection service. This revolving fund is also the source of funding for the Division of Solid Waste Management operations including landfill operations and personnel salaries. Revenue from a recycling fund is approximately $360,000 annually.

Each State has at least one dump. Dumps on Babeldaob are officially closed, but occasionally still used. Dumps on outer islands are in use. In addition to dumps, the burning of trash is widespread. In many locations, dumps drain into food production areas and thus pose a threat to human health. Improving waste management through segregation and recycling (to reduce inputs to dumps) is an immediate priority, and restoration, mitigation, and, or capping of dumps is a medium-term priority. Although dumps are the purview of the national government, the impacts are felt directly by communities, and thus ensuring that dumps are better managed remains a community priority. While every community is facing increasing levels of marine debris, the problem is particularly acute in outer islands, whose only management options are adding to their dumps or burning (which releases chemicals from the primarily plastic marine debris). Managing the flow of marine debris is a medium- to long-term priority for communities.

Other current and ongoing programs are:

- Operation and maintenance of M-Dock Landfill. The total land area of the landfill is 13 acres, and the final disposal site area is 9 acres. The estimated waste amount entering the M-dock landfill is 30 tons/day and the current life expectancy is 2 years.

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- Waste tires shredding project. A shredder machine was procured in 2016 and operation started in 2017. More than a hundred thousand waste tires have been shredded and there are more than fifty thousand tires stockpiled at the landfill area. The amount of waste tires entering the landfill is approximately 800 to 1000 pieces per month.
- Scrap metal project. BPW has a contract (Contract No. 12-029) with Palau Waste Collection to collect all scrap metal entering the M-dock landfill for recycling purposes. The contract also includes buying and shipping out redeemed beverage containers (steel, aluminum, and plastics) from the recycling program (RPPL 7-24).
- Recycling Program (RPPL 7-24). The Division of Solid Waste Management is managing the program through a partnership with the KSG, Belau Garbage and Scrap Company (BGSC), and Palau Waste Collection. KSG and BGSC are the redemption centers and Palau Waste Collection is the exporter of the recyclables.
- Awareness programs. Awareness programs are conducted throughout the year to promote the 3Rs, waste segregation, and the importance of best waste management practices. Activities include school visits, activities with students, tours at the national landfill, information booths during special events, coastal clean-ups, walk-n-pick activities, and talk shows.

Special non-recurring projects are:

- International Center Environmental Technology Transfer (ICETT) "project of working together with the government and the citizens for zero waste society promotion in the Republic of Palau". This project started on August 2018 and will continue until August 2021. The project is implemented by Mie Prefecture Government and ICETT together with the BPW and other government agencies. The project is implementing a waste recycling system through segregation in selected target areas, which are Ibobang, Ngatpang State, and Mongami, Aimeliik State following the concept of 3R+Return.
- Japanese Technical Cooperation Project for Promotion of Regional Initiatives on Solid Waste Management in Pacific Island Countries Phase II (JPRISM II). This project consists of nine countries in the Pacific including Palau. There are four outputs for Palau:
  (i). A new National Solid Waste Management Strategy (NSWMS) and its action plan were prepared in line with the Cleaner Pacific (2016-2025) and officially submitted to the Minister. This has been completed.
  (ii). Good practices of solid waste management, that is "3R" are promoted in the country and the region. This is ongoing.
  (iii). Solid waste collection is improved in 10 States of Babeldaob Island and in Koror. This is also ongoing.
  (iv). The ongoing transition from the M-dock landfill to a new landfill.

Specific contracts include:

- Service Contract No. 12-029 with Palau Waste Collection to collect all scrap metal entering the M-dock landfill for recycling purposes. This contract also includes buying and shipping out certain redeemed beverage containers (steel, aluminum, and plastics) from the recycling program (RPPL 7-24).
- Service Contract No. 16-084 with Belau Garbage and Scrap Company for the company to operate as a redemption center under the recycling program (RPPL 7-24).
- MOU with KSG to operate as an initial redemption center under the Beverage Container Recycling Regulations (RPPL 7-24).

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- A service Contract for the Babeldaob States Waste Collection Service is pending.

Strategy

The government will gradually introduce state-of-the-art facilities and best practices to dispose of solid wastes and thereby promote improved health and preserve the natural environment.

Priority Programs and Projects (2023 to 2026)

- With the construction of the new national landfill in Aimeliik State the older, now disused waste disposal sites need to be closed and the land rehabilitated and returned to commercial or agricultural use, and
- Waste-to-Energy technology would significantly reduce the volume of waste disposed at the landfill and at the same time produce usable energy.

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Solid Waste Management Performance Monitoring and Financing Plan Priorities

	Priority Performance Indicators, Baselines and Targets	Data Sources and Reporting Mechanisms	Assumptions and Risks
National Impact	Better natural environment, improved people's health, more attractive environment for tourism, safety, supporting both social and economic growth.	Environment, health, and economy pillar M&E	
Sector Outcome	Cleaner environment.	NEMS Report	Other social, environment, economic management, and good governance.
Ministry Outputs	1) Half of dump sites closed by end of FY27. 2) Scrap metal storage area established by FY25. 3) Tipping Fee system implemented by FY25. 4) Private company recyclers incentives established by FY26. 5) Recycling program expanded by FY24. 6) Advance Recovery Fee & Deposit (ARFD) established by FY25.	BPW Annual Report Recycling Program Annual Report Tipping Fee Report	Private sector and the public adhere to waste management regulations.

Ministry Inputs and Activities ($)	FY 24	FY 25	FY 26	FY27	Assumptions and Risks
I. Annual Recurrent Budget	487k	487k	487k	487k	Redemption rate is above 80%. Imports sustained. State Governments continue to manage bulky waste. OEK passes required legislation. Land is available. Public pays Tipping Fee.
II. PDP Priority Recurrent Programs					
II.1. Closure of Babeldaob and Koror Dump Sites	150k	200k	500k	200k	
II.2. Identify a designated area near the National landfill-Aimeliik for a private scrap metal recycler for the purpose of scrap metal collection, treatment, and export at no cost to the government.	0	0	200k	0	
II.3. Establish a Tipping Fee system at the National Landfill to support the Operations and Maintenance of the landfill. Provided by JICA.	0	50k	0	0	
II.4. Strengthen private company recyclers by providing incentives such as tax breaks.	20k	20k	20k	20k	
II.5. Expand recycling program to include non-beverage containers	Deposit fee-revenue-generating.				
II.6. Establish Advance Recovery Fee & Deposit (ARFD) towards sound material cycle society is developed and a legal framework for at least one problematic waste stream is developed. Waste streams such as end of life vehicles, e-waste, waste tires, etc.	Deposit fee-revenue-generating.				
II.7 Feasibility study for Waste-to-Energy program	0	0	0	200k	
III. PDP Priority Capital Programs	0	0	0	0	
TOTAL	**657k**	**757k**	**1.21m**	**907k**	

ARFD: Advance Recovery Fee & Deposit BPW: Bureau of Public Works, JICA: Japan International Cooperation Agency, M&E: Monitoring and Evaluation, NEMS: National Environmental Management Strategy.

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TOURISM

Goal

To recover the number of value-adding tourism visitors to over 150,000 per year and to ensure that Palau remains a pristine paradise and is a destination that meets visitor expectations, and delivers value added to the country including delivering community benefits.

Status and Trends

Tourism is the country's bread and butter. It is the golden goose that lays the golden egg. Palau's economy largely relies on tourism as the lead source of revenue generation. Palau is well known for its beautiful islands and ocean environments, for scuba diving, and as a yachting destination. There is great potential to expand the tourism industry into more ocean sports, more on-land leisure and sports, and other specialist tourism industries catering for example weddings, honeymoons, history, culture, film, and TV. Palau is also a safe and peaceful destination with a stable economy utilizing the US dollar.

The total number of visitors was stable at around 80,000 each year between the years 2004 and 2010. The country then experienced a conflict between high-end and lower-end tourism between the years 2012 and 2018 with a resultant, heightened trade-off between commercial and environmental objectives. The industry and the number of visitors collapsed between 2020 and 2022 due to the impact of the COVID-19 pandemic. The government and people now look to the industry to both recover and grow the economy.

Prior to the impact of COVID-19 Palau had adopted a policy to attract high-value tourists. However, Palau remains little known to many foreign investors, and international tourism markets are little known in Palau. It is therefore very difficult to assess and match alternative potential Palauan tourism products and markets. It can also be very difficult to implement new tourism and other development policies in Palau where access to land is required and where authority over that land is dispersed amongst national and state governments and individual families. As a result, tourism developments have been mostly uncontrolled, and in an unregulated market, the tourism industry, and hence the overall economy has been subject to volatility and large swings in the number and nature of visitors.

Koror State, the main tourist destination, has well-developed hotels, restaurants, bars, tour operations, retail facilities, and supporting public infrastructure and utilities. Other States do not have this tourism infrastructure.

Currently, two airlines have scheduled flights to Palau. United operates flights between Guam and Palau, and between the Philippines and Palau. China Airlines also flies from Taiwan to Palau twice a week. These airlines have recently been joined by Air New Guinea which operates flights from Port Moresby to Brisbane and on to Palau once a week. A further upcoming route is between Singapore and Palau.

There is one government office, the Bureau of Tourism (BOT), and one semi-government autonomous agency, the Palau Visitors Authority (PVA). BOT's mandate is to regulate the tourism industry. The PVA is the government's marketing arm. The Chamber of Commerce has merged with Belau Tourism Association, an NGO that is the government counterpart in the tourism industry. The Foreign Investment Board handles foreign investment. The Boat Owners

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Association for Tourism (BOAT) promotes ocean tourism. There are 3 current tourism regulations: (i) the national pandemic safety regulation, (ii) the Boat Owners Association for Tourism, and (iii) tour operator regulations. The national tour guide certification regulation is under preparation.

Ongoing tourism initiatives are the “Palau Pledge”, the Responsible Tourism Education Act (restricting the use of plastics and promoting reef-safe sunscreen) and the levy of a “Pristine Paradise” environmental fee, and “Green fins”.

The main challenge is to better understand how the government, businesses, and people can steer the future of the tourism industry to one that better accommodates the environmental, cultural, social, governance, and economic needs of the country, a future collection of tourism industries that add local value across the spectrum of development. The nature and extent of accommodation, tourism facilities, and other tourism products and services, as well as public infrastructure, skilled operators, other labor, and flights, will all develop in tandem with the expansion of international markets.

More detailed tourism statistics are needed to help better understand the impact of tourism on the society and economy of Palau, including its current value-added and to otherwise assist policy planning. International commercial market research is also needed to help Palau better understand what future tourism products and markets could meet the country’s tourism goal. Palau could greatly benefit from regular and updated commercial tourism development policy analyses and advice.

While it is recognized there is a need for more detailed tourism data to better understand its impact on the society and economy of Palau, including its current value-added and to otherwise assist policy planning, this can be carried through as a priority program and project for 2023-2026. This can probably be a one-person consultancy to gather data from FIB, Social Security, the Ministry of Finance, and others to assess the bottom-line impact on labor, taxes, and net gain in benefits and answer the ultimate question, "Who are we developing Palau for?"

The tourism sector is greatly supported by non-Palauan labor and foreign investment in hotels, and tour operators. A State Community priority is an outcome of more locally owned businesses and more local small entrepreneurs, i.e., the number of businesses started in Babeldaob and other States other than Koror. The BOT could be a lead partner in establishing quality and standards of basic infrastructure and service.

Another major challenge is to improve the environment for private sector investment, commerce, and trade such that it attracts long-term value-added business activity as opposed to short-term more exploitative operations. The environment for private sector development is a common concern for all businesses and not just the tourism industry.[135] The government will continue to advise and otherwise assist small domestic businesses through the Small Business Development Center and the National Development Bank of Palau.

Communities, government, and all organizations would benefit from a better understanding of the tourism industry’s potential value-added social, cultural, environmental, governance, and economic benefit to Palau. This potentially takes the form of (i) jobs, including high-paying skilled jobs for Palauans, (ii) the generation of taxable revenues (taxed profits, wage and salaries, fees, licenses, and other incomes) that pay for public services and government employment, (iii) for associated Palauan local investments, and (iv) a greatly expanded demand

[135] See Governance Pillar comment on private sector development.

for public utilities, infrastructure, transport, and communications that would benefit the public at large.

There also needs to be a revival of Palauan arts and culture. Most States' master plans want to establish cultural tourism. Not only will this involve the Historic Preservation Office with historical registered sites but also the school system to establish a cultural learning part of the curriculum and the community in passing hands-on skills and knowledge.

A recent Pacific regional report by the World Bank provides some directions for future tourism policy and strategy but, as the report states, these directions need to be refined for the circumstances and potential of Palau.[136]

Strategy

In the interest of "*A Kot a Rechad er Belau.* People's First", the strategy for Palau tourism is for the government, businesses, and all Palauans to better understand the nature and the means to developing a Palau tourism industry that adds value to the country's environment, society, culture, governance, and economy and to help steer the industry towards those aims.

Priority Programs and Projects (2023 to 2026)

- Recruitment of international tourism products and markets' research and development consultancy to help define new tourism policy and statistics.
- Assessment of value-added.
- Recruitment of an intermittent tourism policy planning adviser.
- Establish standards for infrastructure and services.
- A program of participatory workshops, other meetings, and policy dissemination.
- Revival of Palauan arts and culture.
- The development of Ngeremiengul waterfall, Ngchesar Waterfall, and Ngiwal Park as tourist destinations.

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[136] World Bank. 2023. The Future of Pacific Tourism. Washington DC

Tourism Sector Performance Monitoring and Financing Plan Priorities

	Performance Indicators, Baselines, and Targets	Data Sources and Reporting Mechanisms	Assumptions and Risks
National Impact	Recover the number of tourists to 150,000 with every visitor bringing added value to the environment, society, culture, governance, and economy of Palau by the end of FY 2027.	New USDA EconMap breakdown of tourism statistics to identify value-adding tourists.	
Sector Outcome	The government, businesses, and all Palauans better understand the nature and the means to developing a Palau tourism industry that adds value to the country's environment, society, culture, governance, and economy and helps steer the industry towards those aims. Visitor	A new Tourism Development Policy endorsed by OEK	Rules and regulations and regimes of taxation, fees, licenses, permits, and standard operating procedures are all in place to support the new legislation. The environment for private sector development is improved.
Ministry Outputs	• New national Tourism policy and set of statistics. • Report on assessment of tourism value-added. • Published standards for infrastructure and services. • At least one Palauan arts and culture event in each State, each year from FY 25 to FY 27.	BOT annual report. State Plans annual reports.	State Government Tourism Plans are completed and supportive. Participatory processes support the widespread dissemination of new tourism knowledge.

Inputs and Activities ($) Item	FY24	FY 25	FY26	FY27	Assumptions and Risks
I.1 Annual BOT and PVA recurrent budget – local	1.8m	1.8m	1.8m	1.8m	The entire private sector is organized and can be engaged in the development of a new tourism development policy and strategy.
II. PDP Priority Recurrent Programs					
II.1 Commercial international market and product research aimed at new value-added Palau tourism policy	250k	0	0	0	
II.2 Assessment of value-added followed by intermittent international tourism planner advice on tourism policy formulation	75k	80k	80k	80k	
II.3 Establish standards for infrastructure and services	50k	0	0	0	
II.4 Revival of Palauan arts and culture	40k	40k	40k	40k	
III. PDP Priority Capital Programs					
III.1 Ngeremlengui Waterfall	90k	0	0	0	
III.2 Ngchesar Waterfall	90k	0	0	0	
III.3 Ngiwal Park	90k	0	0	0	
III.4 Restoration of cultural sites	20k	20k	20k	20k	
III.5 Construction of cultural centers	20k	20k	20k	20k	
III.6 Expansion of Belau National Museum	0	0	500k	0	
TOTAL	**2.56m**	**1.96m**	**2.46m**	**1.96m**	

BOT: Bureau of Tourism; OEK: Olbiil Era Kelulau; PVA: Palau Visitors Authority

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TRANSPORT - AIR

Vision: "KEEP IT SAFE AND SECURE"

Goal

The goal of the air transport sector is to provide, protect and maintain air transport services on an efficient and equitable basis to improve access, standards, reliability, and value for money. This includes maintaining our certification with continuous training for Aircraft Rescue and Fire Fighting, Airport Police, Automatic Flight Information Service Unit, Navigational Aide Technicians, and Airfield and Facilities Maintenance Personnel.

Status and Trends

Palau has only one airport, which is the main point of entry, and 2 airfield facilities located on the islands of Peleliu and Angaur to the South of Babeldoab. The main international airport in Palau is in Airai State and is operated under the Bureau of Aviation (BoAV) under the Ministry of Public Infrastructure, Industries, and Commerce and the new joint venture company Palau International Airport Corporation (PIAC). The Bureau of Aviation manages the airside facilities and PIAC manages the landside facilities. Both airfields are managed and operated by their respective local state governments. The aviation sector in Palau is small and relies primarily on tourism. Prior to COVID-19, there were approximately 30 flights per week into and out of Palau. Palau is serviced by United Airlines, China Airlines, and Asiana through international scheduled flights that all land at Palau International Airport. Prior to Covid 19 and border closure measures seasonal charters included Japan Airlines, Tway, Skymark, Sky Angkor, Lanmei Airlines. The largest aircraft that can service Palau is a B767-200/300 and the smallest is a B737-700/A-319

General aviation activities providing service on demand include Pacific Mission Aviation, Smile Air Inc. using single-engine aircraft, and Palau Helicopters Inc. Prior to COVID-19 cargo services were provided by United Airlines Cargo, as part of an almost daily scheduled route, and by Asia Pacific Air (APA), a subsidiary of Tan Holdings, that provides air cargo charter out of Guam. Domestic carriers are limited to small tourist charter airlines.

The Bureau of Aviation, Palau International Airport Corporation (PIAC), Palau International Airport is regulated by the Palau National Aviation Administration and routinely undertakes operational and safety compliance reviews. The Bureau of Aviation and Palau International Airport Corporation carry out day-to-day maintenance for airport facilities. Contractors are outsourced for major improvement projects costing more than $5,000. The average annual operating cost to maintain airport facilities is $2,500,000. Major resealing of the runways and taxiways can be performed locally. Current sources of revenue for civil aviation are landing fees paid by Commercial Air Carriers. The availability of skilled staff is not an issue.

The government's first public-private partnership project approved in early 2017 constructed a new annex building, and departure building and renovated the existing building to the main arrival building.

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Key Issues

- Air services can likely only develop alongside increased demand from tourism.
- Palau needs to continue to work towards addressing the International and Civil Aviation Organization (ICAO) SARPS (Standards and Recommended Practices) based on the 2010 ICAO audit.
- The Peleliu and Angaur airfields need to be developed to meet basic safety standards. There are no lighting systems, security fences, navigational aids, and windsocks to support these airfields.
- Additional government funding is needed to:
    - Support the operation and maintenance of Angaur and Peleliu Airfields. Finance basic training and recertification for ARFF and Airport Police to maintain safety and security standards.
    - Refurbish, renovate and repair the Airport Rescue Firefighting building.
    - Acquire new rescue equipment and firefighting gear.
    - Acquire a new VHF base and handheld radios.

Strategy

To plan for and build air service facilities, and certification of airport personnel to maintain the safety and regulatory environment as the demand for air services increases.

Priority Programs and Projects (2023 to 2026)

- Aircraft Rescue and Firefighting Recertification
- Airport Police live Fire Training
- Safety and Security Assessment
- Climate change mitigation measures
- Peleliu and Angaur Airfields need to be developed to maintain runway safety measures.
- The international airport's existing runway and taxiways will require a surface reseal during the period of the PDP.
- In addition to the above, a project involving major renovations to the international airport, including additional new gates with an estimated cost of $40 million funded by JICA/JBIC/SMBC is currently under implementation. A proposal to expand the scope of this project by including X-Ray equipment and a computerized Customs management system (ASYCUDA) at a cost of $5 million, is also currently under consideration.

Priority Programs and Projects (Post Plan, after 2026)

- Establish Aircraft Registry through Legislation

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Transport – Air Performance Monitoring and Financing Plan Priorities

	Performance Indicators, Baselines and Targets	Data Sources and Reporting Mechanisms	Assumptions and Risks
National Impact	Restored number of annual visitors to Palau to 150,000 per year by 2030.	MOF and USDA EconMap statistics	
Sector Outcome	Safe operation of all air transport services in the country maintaining the country's record as having no recorded incidences of safety issues.	BoAV performance report with y.t.d. Monthly Airline Schedule and Air Service Agreements	New tourism policy and strategy put in place. Private-sector tourism product development and marketing continue to support the restoration of the tourism industry. Global pandemics, natural disasters, and other global issues do not reduce visitor arrivals. Site Visit Schedule.
Aviation Outputs	Recertification of ARFF Training, Basic Training, and Continuous Recruitment Recertification of Airport Police Live Fire Training and Execution Security Program Assessment Completion of Personnel Leadership Training Completion of ACM, AEP, WHMP, and ALP Coordination and Cooperation on Joint Use Agreement with the US Increasing Air Transport Service with AP Region Extension of Runway to meet large aircraft	BoAV performance report.	All airlines comply with safety standards.

Bureau of Aviation Inputs and Activities ($)	FY 24	FY 25	FY 26	FY27	Assumptions and Risks
I. Annual Recurrent Budget					Continued FAA funding.
I.1 Annual BoAV recurrent budget - local	2.2m	2.4m	2.6m	2.8m	
I.2 Annual BoAV FAA AIP Grant 10% ROP Share	0.5m	0.5m	0.5m	0.5m	
II. PDP Priority Recurrent Programs					
II.1 ARFF Recertification	100k	110k	120k	250k	
II.2 ARFF Basic Academy	50k	60k	70k	80k	
II.3 Airport Police live Fire Training and Police Academy	10k	20k	30k	40k	
II.4 Safety and Security Assessment	10k	10k	10k	10k	
II.6 Runway Improvement and Maintenance	50k	50k	50k	50k	
III. PDP Priority Capital Programs					
III.1 Climate Change Mitigation Measures	50k	50K	50k	50k	
III.2 Develop Peleliu and Angaur Airfields	0	0	0	22.25m	
III.3 Reseal international airport's runway and taxiways	0	0	10m	0	
III.4 X-Ray equipment and a computerized Customs management system (ASYCUDA)	0	5m	0	0	
TOTAL	**2.97m**	**8.20m**	**13.43m**	**26.03m**	

ACM: Aeronautical Charting Meeting, AEP: Aerodrome Emergency Plans, AP: Asia-Pacific, ARFF: Aircraft Rescue and Firefighting, BoAV: Bureau of Aviation, FAA: Federal Aviation Administration, FIA: Flight Instructor Airplane, MOF: Ministry of Finance, ROP: Republic of Palau, WHMP: Wildlife Hazard Management Programme.

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TRANSPORT - LAND

Goal

The goal for the sector is to provide, protect and maintain land transport services on an efficient and equitable basis to improve access, standards, reliability, and value for money.

Status and Trends

Palau has approximately 85 miles of highways and approximately 30 to 35 miles of unsealed roads. The existing road network adequately serves the nation's needs. The main periphery road (the Compact Road) in Babeldaob is paved. Unpaved roads are mostly roads from each state that connect to the Compact Road or to communities within a state. There are no toll roads. In 2017, resurfacing and repair began for the main loop road on Babeldoab under the Compact Agreement and was completed in 2018. The main loop road pavement surface is still in excellent condition. However, there are sporadic areas where embankment settlement-related pavement failures are noted and documented. The Babeldoab loop road is mostly inland and significantly above sea level, except for the stretches on the eastern side near Ngiwal and in the north at Ngaraard, where the road crosses a low lagoon area by a causeway. The specifications of the compact road construction, managed by the US Army Corp of Engineers, follow the American Association and State Highways Transportation standards in terms of geometric design for highways and streets.

Access from the main island of Babeldoab to Koror is by way of a suspension bridge. The original bridge collapsed in 1996 but was rebuilt and now acts as a critical link between Koror and the main Babeldaob Island. Causeways also connect Koror to Malakal Island and to Meyuns west of Koror Island. A small road network also exists on Peleliu and Angaur islands. Peleliu has approximately 4 miles of sealed road from the port to the main town – the rest is unsealed.

The speed limit is 25mph/40kmph. Vehicles must slow down through villages and drive through at a respectful pace without loud music. There are no issues with road security. There are no weighbridges in the road network, nor are there mandatory or regulated mass limits for vehicles apart from the Koror bridge - vehicle configuration that allows for the transport of 40ft containers.

The Public Works Bureau performs road maintenance at a very basic level such as vegetation management, storm drain cleaning and removal of culvert debris, and small-scale landslide removal. Pavement repairs and other major works such as embankment repairs are outsourced. Maintenance equipment consists of two 5-ton dump trucks and a wheel loader. Local expertise exists for asphalt and cement concrete paving, fog seal, and slurry seal and foreign contractors are not needed. The average annual operating cost to maintain roads is approximately $1.4 million per annum.

Strategy

To slowly build up the roads, causeways, and bridges network and associated safety and regulatory environment as the demand for land transport increases.

Priority Programs and Projects (2023 to 2026)

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- Babeldaob Intrastate Road improvements
- Desing of Koror-Airai road repairs
- Climate-proofing of low-lying roads and causeways.
- Paving the roads from each state that connect to the Compact Road or to communities within a state will remain a priority for the duration of the plan
- Minato Bridge Preparatory Study and construction of a new bridge
- Replacement of culverts on Malakal and Meyuns causeways
- Rehabilitate or build new pedestrian walkways in Koror.
- Periodic repair of random road areas to prevent premature pavement impairment
- Sports Facilities Upgrades for South Pacific Minigames
- Renewable Energy Program

In addition to the above-listed projects, the government will also examine options to invest in public transportation, with the objective of reducing congestion and CO2 emissions.

Priority Programs and Projects (Post Plan, after 2026)

- Technical training (in person and virtual) in development planning, construction inspection, maintenance inspections
- Technical training on maintenance

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Transport – Land Performance Monitoring and Financing Plan Priorities

	Priority Performance Indicators, Baselines and Targets	Data Sources and Reporting Mechanisms	Assumptions and Risks
National Impact	Social and economic growth and improved public safety through stronger local participation in a safe, efficient, and sustainable land transport sector and by providing safe and efficient access to and from Koror to rural areas in Babeldaob.	USDA EconMap and IMF Article IV report on economic growth.	
Sector Outcomes	1. All roads in rural areas of Babeldaob connecting to the Compact Road are improved with reinforced Portland cement concrete. 2. All interstate roads connecting villages within states are paved as mentioned above. 3. Main bridges and culverts on causeways are renewed/improved to ensure vehicular traffic safety and extended service life of infrastructure.	Annual MPII reports on construction.	All other Ministries, SOEs, and the private sector provide efficient and effective support.
Ministry Outputs	Project Documentation and Supplemental Project Details write-up and submission to funding agencies. Project inception planning including the determination of whether to outsource projects, perform them in-house or perform thru Force Account Agreements with State Governments. Development of project scope of works and bill of quantities needed for procurement purposes or in-house implementation or force account. Provide construction management. Handover of the completed project to owning stakeholder.	Reports of independent consultancy feasibility studies.	All feasibility studies prove all proposed government investments are feasible. Government, Donor and, or Development Partner funding is available. Contractors perform as contracted.

Ministry Inputs and Activities ($)	FY 24	FY 25	FY 26	FY27	Assumptions and Risks
I. Annual BPW Recurrent Budget	1.48m	1.48m	1.48m	1.48m	Sustained annual donor funding.
II. PDP Priority Recurrent Programs					
II.1 Road Maintenance Funds	680k	680k	680k	680k	
II.2 Recycling Fund	680k	680k	680k	680k	
II.3 Compact Infrastructure Maintenance Fund	2m	2m	2m	2m	
III. PDP Priority Capital Programs					
III.1 Babeldaob Intrastate Road improvements	7m	7m	7m	7m	
III.2 Koror-Airai Road Repairs (design)	600k	0	0	0	
III.3 Minato Bridge Preparatory Study	200k	0	0	0	
III.4 Construction of new Minato Bridge	0	2m	0	0	
III.5 Rehabilitation and climate proofing of causeway culverts	0	0	2m	0	
III.6 Sports Facilities Upgrades for South Pacific Minigames	0	5m	0	0	
III.7 Renewable Energy Program Grants	200k	200k	200k	200k	
TOTAL	**12.84m**	**19.02m**	**14.04m**	**12.04m**	

BPW: Bureau of Public Works, IMF: International Monetary Fund, MPII: Ministry of Public Industries and Infrastructure, SOEs: State-Owned Enterprises.

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TRANSPORT - MARINE

Goal

To foster social and economic growth through stronger local participation in a safe, efficient, and sustainable maritime transport sector, and to provide a safe, secure, and healthy maritime environment through domestic implementation of applicable maritime rules and policies.

Status and Trends

Palau's local maritime transport sector consists of Palau-based small- to medium-sized vessels that are used primarily to transport passengers and cargo to states that are not connected to Koror by road and to provide transport services to the tourism sector. Currently, there are seven vessels being operated separately twice a week to provide services to the states of Kayangel, Peliliu, and Angaur. Kayangel State Government utilizes one 29' and one 38' open utility boat to provide transport service to their state. Peleliu State Government operates a 38' open utility boat, the 60' Nippon Maru II, and a 67' landing craft (MV Odesangel Dil) to provide cargo and passenger service to their state. Angaur State Government provide cargo and passenger service to their state using a 75' landing craft (MV Regina IV) in addition to a 38' open utility boat.

The Southwest Island States of Sonsorol and Hatohobei charter privately operated ships to service their states. Each state makes at least one trip per year with 18 passengers and 3 tons of cargo at a cost of $25,000 for the first four days and an additional $4,200 per day after that. At best, Sonsorol and Hatohobei State can make a trip carrying 8 passengers and 3 tons of cargo for $9,000 and $12,000 respectively.

These arrangements result in higher costs for asset maintenance and personnel. To provide a more efficient and affordable means of transportation to all these outlying states, it is recommended that a larger purpose-built passenger/cargo vessel, preferably with twin engines and bow thrusters, be procured, and operated with one of the existing smaller vessels to unify these services and to reduce the cost of personnel and maintenance. The vessel can be operated by the national government as a multi-purpose vessel. Aside from providing the outlined services, it can also serve as a training ship to train local seafarers for work on the larger domestic passenger vessels and to support the government's efforts in maintaining aids to navigation. Such combined service will improve services to Sonsorol and Hatohobei States as the number of services can be increased, and the trips do not have to be scheduled around the charter schedule of the privately-operated ships.

Most local boats are used to service the thriving tourism industry as dive boats or to move tourists for recreational purposes such as sports fishing, snorkeling, and sightseeing. Foreign-owned vessels operating in Palau waters are leased under bareboat charter arrangements and used as live-aboard vessels for divers. In terms of their registrations, about twelve (12) powered vessels and four (4) barges of 19.8m or more in length are registered on the domestic registry operated by the Bureau of Marine Transportation. Some 2,000 motorboats less than 19.8m in length are documented on the Koror State motorboat registry.

In addition to the above, foreign ships call into the international ports of Palau or pass-through Palau's territorial waters on their way to other international destinations. Visiting international vessels include cargo carriers, tankers, cruise ships, research vessels, fishing vessels, and yachts. It is estimated that around seventy foreign cargo ships call into Palau each

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year. For ships that pass along Palau's coast or call into ports, Palau has an obligation to provide Aids to Navigation, weather forecasts, up-to-date and corrected hydrographic charts, and maritime search and rescue services.

There are two international ports, 28 local docks, and two anchorages. The Port of Malakal is the main port of Palau and is situated on Malakal Island, adjacent to Koror Island. The port's land area is limited restricting port infrastructure and service. The port is situated in a protected lagoon and is serviced by local companies in partnership with three shipping lines, namely Kyowa Lines, Matson Navigation, and PIL/ Mariana Lines. The three local companies serve various routes from the US mainland, Guam, and Asia under an Entry Assurance Scheme. The port has two main docks, each able to handle vessels up to 500 ft. in length. Access to the port is via channels through the outer reef. The docks are 156m and 159m in length with a self-imposed draft of 7.2m.

Belau Transfer and Terminal Company (BTTC) is a private operator and undertakes all terminal services and stevedoring activities at Malakal Port and freight delivery services to customers. BTTC leases the port premises from the Koror State Government. Freight movement is predominantly containerized, with 200-400 containers received each month, and approximately 100 mt of bulk break cargo per month.

The port handles approximately 6 to 8 cargo vessels per month that are almost exclusively container freight; Kyowa line and PIL Eurasia/MIL lines provide scheduled services to Koror. Container arrival per month varies depending on the time of year and infrastructure projects being undertaken. Historically, freight volumes increase from November to April, due to Thanksgiving and Christmas holidays. During major infrastructure programs, maximum handling has reached 500 containers per month, not including tonnage moved for Breakbulk. Containers must all be unloaded by gantry crane, as no container cranes are available at the dock. Depending on the ships' gantry crane and operator capacity, containers can generally be unloaded at a rate of 6 to 10 per hour.

Malakal Port has no reefer stations for the siting and temporary powering of refrigerated containers. Unloading and dispatch from the port for customers with reefer containers (e.g., main supermarkets) are synchronized and planned, to ensure containers are dispatched to the consignee's site directly upon unloading from the vessel. It is often the case that reefer containers are unloaded within 4 to 6 hours of discharge from the vessel. In case of emergencies, generators can be provided for temporary power needs. All port logistical services are carried out at the BTTC building located within the port. The building is two stories high. The concrete part is roughly 46' by 46' in size with an adjacent space of 46' by 62' which is used as a Cargo Free Storage area.

Malakal Port lies adjacent to the fisheries port that is owned and operated by Tan Holdings. This neighboring dock facility is for the exclusive purposes of unloading fishing vessels and packaging for export and does not handle general cargo.

Malakal Commercial Port is accessed by way of West Pass and East Pass. West Pass, which is used by large vessels, starts at the entrance of Ngaremlengui channel and winds down on the west side of Babeldaob into Koabesngas, and terminates in Malakal Harbor. The East Pass begins at Todai and comes directly into the port area. Vessels rely on a myriad of aids to navigation for safe navigation within both passages. Most of these aids identify navigation risks and hazards. Few others mark the center of channels for the safe navigation of large vessels.

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The aids to navigation in local state waterways primarily mark the entrance of channels and the usual route used by small vessels.

Through grant funding assistance from partner countries, the Bureau of Marine Transportation has been able to replace all floating aids and is undertaking the rehabilitation of 85 beacon markers. Even with these efforts, there remain about 115 beacon markers, range markers, and light beacons that need to be replaced or upgraded to ensure the safety of navigation.

Currently, there is no fully functional shipyard in Palau. The only slipway facility in Palau is privately operated. However, the slipway can only accommodate small vessels, and the available services are limited and relatively expensive. Another area for small vessel repair, including yachts, is a privately-owned facility located on the Airai side of Toachel Mid channel.

Local shipowners spend around $80,000 every two years to drydock their vessels in Cebu, Philippines. To ensure proper and adequate maintenance of local vessels and to promote sea safety, it is recommended that Palau Government build and operate a drydock facility at a suitable location to accommodate vessels of up to 500GT. The operation can be run by the government, the private sector, or a Public Private Partnership.

There are at least 20 vessels that are over 65' in length which operate domestically in addition to at least 23 fishing vessels. These vessels are required by law to be surveyed out of the water twice in a five-year cycle. This amounts to $3.4 million every five years spent overseas. This amount, less fuel cost, can be invested locally if there was a fully functional shipyard that could accommodate these vessels. The shipyard would also stimulate further local investment and job opportunities.

Strategy

The government intends to increase its role in the marine transport sector to improve marine transport services by (i) replacing a less efficient private sector fleet of small vessels servicing the islands with one larger government-owned and operated ship, (ii) investigating the potential viability of investing in a drydock, (iii) rehabilitating the existing port in Malakal to increase the land area by acquiring the adjacent fisheries dock, and thereby create a mechanism for seafarer training. The government will also continue to mark the entrances of all state waterways with lighted aids and mark all risks to navigation.

Priority Programs and Projects (2023 to 2026)

- Feasibility study followed by the investment and operation of a government vessel
- Feasibility study followed by the construction of a Dry-dock Facility
- Feasibility study followed by the expansion and Rehabilitation of Malakal Commercial Port
- Replace two sets of range markers in West Pass
- Replace light aid in Malakal Harbor
- Extend light aid in front of East Pass
- Install 115 new beacons in state waterways

Priority Capacity Building Programs and Projects (Post Plan, after 2026)

- Training vessel. USD5,000,000
- Seafarer's training. USD60,000/annum

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Transport – Marine Sector Performance Monitoring and Financing Plan Priorities

	Priority Performance Indicators, Baselines, and Targets	Data Sources and Reporting Mechanisms	Assumptions and Risks
National Impact	Social and economic growth through stronger local participation in a safe, efficient, and sustainable maritime transport sector, and to provide a safe, secure, and healthy maritime environment through domestic implementation of applicable maritime rules and policies. Island economic growth evidenced.	Maritime Transport Department records of the number of island ship calls and safety incidents and the number of qualified locals working in the maritime sector.	
Sector Outcomes	Increased government role in the maritime transport sector to improve maritime transport services by (i) replacing a less efficient private sector fleet of small vessels servicing the islands with one larger government-owned and operated ship, thereby creating a mechanism for seafarer training, and maintaining navigation aids. Freight and passenger rates are expected to increase as rates will be shifted to a user-pay basis and will provide for sustainable maritime transport service.(ii) a Palau drydock supplying a lower cost service than existing domestic and Philippine drydocks. The cost will be inclusive of slipping service and labor. Currently, domestic drydock charges for slipping, and shipowners must find their own labor. Local employment is expected to increase slightly as Palauans will be hired for most of the work. (iii) rehabilitating the existing port in Malakal to increase the land area by acquiring adjacent fisheries dock, as indicated by a) stabilized freight rates as the port will be able to handle larger and more cost-efficient vessels, and b) an increase in luxury yacht visits.	(i) Annual vessel operating records. (ii) Invoices from drydock. Annual Drydock reports (iii) Entry Assurance holders' annual report to the Micronesian Shipping Commission. Data from BMT.	National Government social services to islands increase with increased shipping. Island economic activity increases with increased shipping.
Ministry Outputs	Government-owned vessel feasibility study completed. The government-owned and operated vessel commences operation and provides increased maritime transport services to all islands at a lower cost than previous operations. Government-owned drydock feasibility study completed. The government-owned (and possibly private sector-operated) drydock commences operation and provides services at a lower cost. Extended Malakal port feasibility study completed. Extended Malakal port provides increased port services at a lower cost than previous operations.	Reports of independent consultancy feasibility studies.	All feasibility studies prove all proposed government investments are feasible. Government, Donor and, or Development Partner funding is available.

Ministry Inputs and Activities ($)	FY 24	FY 25	FY 26	FY27	Assumptions and Risks
I. Annual Recurrent Budget					Economic, social, and environmental feasibility studies prove the viability of the proposed government investments.
I. 1. Annual Marine Transport recurrent Budget	242k	362k	398k	419k	
II. PDP Priority Recurrent Programs					
II.1 Feasibility Studies	150k	300k	0	0	
II.2 Additional recurrent budget for operations of government vessel	~~0~~	380k	412k	447k	
II.3 Additional recurrent budget for operations of drydock	~~0~~	0	360k	396k	
II.4 Additional recurrent budget for operations of extended Malakal port	~~0~~	~~0~~	0	120k	
III. PDP Priority Capital Programs					
III.1 Government vessel	0	0	0	5m	
III.2 Drydock	0	0	0	5m	
III.3 Extended Malakal port	0	0	132m	0	
III.4 Replace and extend light aids and place new beacons	400k	400k	400k	400k	
TOTAL	**792k**	**1.44m**	**133.57m**	**11.78m**	

BMT: Bureau of Marine Transportation

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WATER AND SANITATION

Goal

The goal is to provide, protect and maintain water and sanitation services on an efficient and equitable basis to improve access, standards, reliability, and value for money.

Status and Trends

Water: In July 2013, Palau Public Utilities Corporation water and wastewater operations became responsible for the delivery of water supply and sewage systems. The water system services about 98.9% of the urban population and 86.2% of the rural population, or 96% of the total population. There are 20 public water systems, all monitored regularly by the Palau Environmental Quality Protection Board (EQPB) for water quality, including chlorine residual, bacteria, and turbidity. Competing water supply demands come from the tourism industry, which diverts hundreds of thousands of gallons. Mangroves and coral reefs are also dependent on freshwater. The impact of water extraction on the coastal environment and the extent to which impounding water has on decreasing freshwater flow to coral reefs is unknown.

Almost every household has some sort of rainwater catchment system, ranging from simple plastic-lined 55-gallon steel barrels to imported aluminum 400-gallon tanks to constructed cement tanks. Desalination has been raised in the past though never thoroughly explored, beyond portable systems for outlying states for use in emergencies (e.g., Kayangel and Sonsorol). Store-bought water bottles are a popular alternative source of drinking water. Watersheds are heavily relied upon as water sources. The Koror/Airai treatment plant estimates extraction of 4.5 million gallons per day from the Ngerimel Dam and Ngerikiil River, based on the amount processed within the plant, not the actual amount of intake.

Given the critical importance to rural and outer island communities of growing their populations through housing, the provision of clean water is an immediate priority. Currently, each small community sources drinking water from small surface streams or small underground aquifers, and these small sources are vulnerable to negative impacts from climate change, drought, and poor land use. Most rural and outer island communities have designated (soon to be zoned) watersheds draining into public water sources as low-development areas. This removes relatively large amounts of land from development and creates conflicts with landowners. Even with protections, water sources still have high inputs of sediment from bare and eroding areas, farms, or other development, leading to higher turbidity than many of these rural systems can handle. Many rural communities consequently face regular poor water quality days. Water quality in rural water systems varies with location but can be poor due to high turbidity and the introduction of coliform, leading to the risk of water-borne illnesses. Water sources are vulnerable to climate change (including saltwater intrusion, drought, and storm-fueled sedimentation). Homes that are reliant exclusively on water tanks are also at higher risk of water-borne illnesses carried by vectors such as rats. Improving and stabilizing access to clean, potable water is an immediate priority for all communities.

Water systems need improvements along their entire supply and distribution chain, from watershed rehabilitation to sourcing of new above- and below-ground water sources to improved water treatment to improved and expanded water distribution systems that maintain potable water quality until it reaches the end user. On Babeldaob Island, removing the individual burden of water systems from States is a high priority, and with many large rivers producing more than enough

water to support a growing population, there is a desire to see the development of a single, large, modern, and fully integrated water supply system as is seen in Koror and parts of Airai. Improving water quality and ensuring water quantity under climate change is an immediate priority for communities.

The main source of pollution is sedimentation caused by poor erosion control, loss of riparian buffers, and poor land use practices. Pollution into the groundwater sources is from poorly maintained septic tanks, leachate from nearby landfills, and from saltwater intrusion. Additional sources of pollution come from pesticide and fertilizer use in the agriculture sector, detergents in tourism used oil from tourism, transportation, retail, and energy sectors, and micro- and nano-plastics from solid waste. On the reef platforms and atolls, there is a need to limit the amount of groundwater extracted per day. Coastal waters are impacted daily by land-based pollution, gasoline, and oil from outboard motors and ships. With more development expected on the larger islands, other sources of pollution will be inevitable such as sewage, chemical pollution, and oil spills. There are gaps in Palau's chemical life cycle management system, and there are numerous entry points for chemicals to enter freshwater and marine water. Palau has limited on-island capacity to test for chemicals that may be present in water.

New and legacy sedimentation from new and past development, farms, fires, and clearing is a concern for water sources as well as for downstream marine areas, particularly those with fishery and gleaning potential. Implementation of land use planning and zoning to reduce future sediment inputs is an immediate priority. Institutionalizing a program of erosion control, tree planting, or land cover rehabilitation (for which there is proof of concept) is also an immediate priority.

Sanitation: In 2015, 42.8 percent of homes in Koror and Melekeok were connected to the public sewer system while 43.2 percent used on-site septic systems.[137] Koror has a centralized sewerage system that services more than 80% of the Koror population. The network comprises 40 kilometers (km) of gravity mains, 13 km of force (pumped) mains, 43 pump stations, and one wastewater treatment plant located on the island of Malakal. Some of the pump stations need refurbishment, including the replacement of internal plumbing, valves, and control panels. Some pump stations require main sump structural rehabilitation work due to infiltration. Three pump stations need to be relocated as these are in or adjacent to private properties. Koror sits over a ridge falling to the coast on either side. For the most part, the commercial sector is located at the crest of the ridge and the residential hamlets stretch down to the coasts. Sewage is pumped up to the ridge and flows to the wastewater treatment plant. Two other islands, connected by causeways, are also part of the network. The Koror Wastewater collection network was recently rehabilitated under the ADB-funded Koror-Airai Sanitation works. The sewage pump stations' interconnection and network interconnection works are pending. A new wastewater treatment plant was designed, constructed, and commissioned in November 2021 with Sequential Batch Reactor technology. Functional guarantee testing is ongoing.

Except for Koror, the other 15 state sewerage and wastewater systems are predominately on-site sewerage systems. The Melekeok wastewater collection system and treatment plant services the Capital Building and the surrounding village. The wastewater collection system in Melekeok is operating with 8 pumping stations and one treatment plant with Membrane Bioreactor Technology. The existing treatment capacity of the plant is very low if it is going to accommodate new developments such as hotels and resorts. The plant will need to be upgraded to

[137] Government of Palau. 2015. Census of Population, Housing and Agriculture for the Republic of Palau. Volume 1. Basic Tables. Ngerulmud

accommodate future developments. In this regard, a technical information note, and rough estimate were prepared in 2021. For most states, septic tanks are an appropriate technology for very low population density.

In rural states, population and economic growth will see the addition of coliform bacteria and other sewage wastes to the environment via septic tanks and growth in livestock. Given the high cost of sewage systems, most communities are planning and implementing a system of individual septic tanks. If growth proceeds as desired, this will introduce new environmental pollution into water sources. Designing subdivisions to include sewage treatment is an immediate priority. Due to cost, building sewer systems and retrofitting septic tanks is a long-term priority.

Key issues

- Even with the high system losses, per capita demand for water is very high. This is attributed to limited consumer appreciation of the value of water and inadequate tariffs. Current demand is much greater than the yield of the current water sources for the Ngerikiil and Ngerimel rivers.
- National goals to increase the rural population in new subdivisions will result in new demand for resilient, potable piped water from existing small, stressed systems.
- Disruptions to the water supply are experienced during severe droughts affecting approximately 14,000 people. The frequency of droughts could increase because of climate change. Climate projections indicate that Palau is entering an El Niño phase, meaning that drier-than-normal conditions are predicted for late 2023 into 2024. However, early warning systems are not fully established to guide changes in water harvesting and distribution.
- The national water supply systems, including water treatment plants, have been substantially improved over the past 15 years and the water supply networks expanded, particularly in Airai state. However, operations are still inefficient, and losses are high (estimated at about 43%), unmetered connections remain, and a flat fee tariff is applied for water and sewer until 100% metering is in place.
- Most homes have backup water tanks, but maintenance and preparation of those tanks in anticipation of droughts is minimal. Sanitation of individual home systems is also a challenge, especially in rural and outlying islands where rodent populations are high and individual home tanks often fail water quality tests due to the presence of coliform.
- Water quality in the rural systems is often poor, with degrading lands contributing sediment to water systems beyond the levels that can be removed by rural water systems.
- There is a loss of efficiency due to multiple decentralized rural systems.
- There is almost no understanding of the impact of human uses and extraction and its impact on the environment.
- Outer island states and Ngiwal, which rely on groundwater, are facing saltwater intrusion and degradation.
- The poor state of the sewage network and treatment plant leads to system blockages resulting in overflows at the low-lying pump stations and discharges of raw sewage to the surrounding environment. The problem is exacerbated by (i) poor maintenance, (ii) an inadequate emergency response capability, (iii) groundwater infiltration, and (iv) illegal stormwater connections. The frequency of overflows is increasing as the network deteriorates and when tourist numbers increase.
- Increases in population in Airai are beginning to create a health and safety problem as block sizes are declining and the soil types are inappropriate for septic tanks. The major

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housing development in Airai (Kesebelau) can no longer maintain septic systems without weekly pumping. Goals for growth in rural states mean that this problem may be repeated and compounded in other rural states, as most states are planning individual septic tanks for homes.

- States have land use plans with residential zones that incorporate soil-septic suitability, there is little ongoing support for continued land use planning or for soil and percolation testing. Thus, home development may proceed in sites that are conducive to coliform pollution if technical support is not provided on a regular basis.
- The Belau National Hospital has monitored the incidence of gastroenteritis since 2008. From 1 April 2011 to 31 March 2012, the hospital recorded 862 cases in Koror, 429 (50%) of which occurred during 3 months from November 2011 to January 2012 prior to the merger of PPUC when sewerage overflows were the greatest. Hospital records show that during the worst month, 1.25% of Koror's population was treated for gastroenteritis. Given the number of people who do not seek treatment, the actual number of cases is estimated at 6.25% of the total population. The risk of a much more serious waterborne disease outbreak such as cholera is high.
- In 2011 the cost of providing water and sewerage services was approximately $3.8 million with a government subsidy of 74%. A framework of tariffs and tariff increases to achieve full cost recovery has been agreed upon and is being implemented.
- The standby generators, which are a critical piece of equipment required for the safety and security of water supply during prolonged power outages, are dysfunctional at most of the water treatment plants and pumping stations, due to lack of maintenance or lack of spare parts. This is a serious deficiency that needs to be urgently addressed.
- Palau has little capacity to test for chemicals in the water.

Strategy

The government seeks to further amend legislation and regulations in support of improved water management. The government is investing in new plants and gradually raising tariffs to reduce subsidies, adopting new, more appropriate ownership, and has taken action to strengthen water and sewer management and to otherwise seek to improve operational efficiencies and effectiveness. The government seeks to provide a climate-resilient, potable water supply that meets new sources of demand.

Priority Programs and Projects (2023 to 2026)

The urban sector has recently received substantial investment in infrastructure through (i) the ADB 2009 Water Sector Improvement Program, and (ii) the ADB-funded Koror-Airai Sanitation Project which was approved in October 2013. A second phase of the latter project is planned. Specific planned infrastructure programs are:

- The rehabilitation of the Koror-Airai system.
- The rehabilitation of rural water pumping stations and distribution systems.
- Expansion of rural water systems to new homes and subdivisions.
- The rehabilitation of water desalination plants
- Re-construction of Ngerimel Bridge which is used by the Koror-Airai Water Treatment Plant personnel to cross to the other side for dams, wells, and transmission lines valves maintenance.
- Construction of an additional chemical storage room with AC that can store up to at least 6 months' worth of supplies.

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- Raise the existing Ngerikiil Dam Weir by 2ft and re-construct the Ngerikiil Dam Walls to stop leakage and increase volume capacity.
- Refurbishing of the Distribution Storage Tanks in Airai, Ngermid, Ngerkesoal, and Ngerkebesang. The current tanks are old and require inspections from experts to confirm the integrity of each tank.
- Reconstruction and reinforcement of Peleliu Water Treatment concrete walling of the existing 60,000 gallons underground holding tank to avoid further damage to the walling around the underground holding tank.
- Various water system improvement projects for Imeong, Ngeremlengui, Mechebechubel, Ngatpang, Mongami & Ngchemiangel Aimeliik.
- Feasibility study for the creation of a single, integrated water system for Babeldaob's rural states.
- Reduction of pollution of water sources.
- Water quality monitoring and sanitation training.
- Drought and climate-resilient water planning.
- The renovation and expansion of the Melekeok treatment plant
- The replacement and rehabilitation of sewage pumping stations and collection pipes in rural areas.
- Assistance with technical planning to ensure septic tanks are fit-for-purpose per location/subdivision.

Priority Programs and Projects (Post Plan, after 2026)

In addition to the above-listed projects, the government will examine alternative methods of sewage disposal, such as Kubota treatment plants, which are highly efficient and environmentally friendly. This will be implemented via a feasibility study for the conversion of septic tanks to sewage systems in rural states and subdivisions. Additional longer-term investments will be needed to manage chemicals and determine water-sharing regimes, especially as agriculture expands and if irrigation places a demand on the water during times of drought.

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Water and Sanitation Performance Monitoring and Financing Plan Priorities

	Priority Performance Indicators, Baselines, and Targets	Data Sources and Reporting Mechanisms	Assumptions and Risks
National Impact	Increasing population decentralizing away from Koror (5% per year)	Future Census	
Sector Outcome	Sustainable, viable supply of quality and safe water, reducing number of failed water quality tests to less than 10% per year and reduce NRW percentage from 56% to 35% by 2024. Well-maintained existing technical financial, economically viable wastewater system by FY?27 Well-maintained rural and outer island water catchment tanks and pit latrines as per DEH quarterly reports.	PPUC Corporate Plan 2023–2025; Public Health Epidemiology Office Annual Reports	Other health improvements, tourism developments, and accompanying improvements in natural environment.
Outputs	Koror – Airai System rehabilitated. Additional Chemical Storage Room constructed. Ngerimel Bridge re-constructed. Ngerikiil Dam Weir raised, and Walls reconstructed. Airai, Ngermid, Ngekesoaol, and Ngerkebesang Distribution Storage Tanks refurbished. Water system improvement project for Imeong, Ngeremlengui, Mechebechubel Ngatpang, Mongami and Ngchemiangel Aimeliik established. Peleliu Water Treatment reconstructed and reinforced. Proportion of new homes connected to public water system and/or with climate-resilient tank systems that regularly meet minimum water quality standards increased.	PPUC Corporate Plan 2023-2025; DEH quarterly reports; EQPB Water Quality Data	Citizens pay water and wastewater bills; Citizens maintain water catchment tanks and pit latrines; Proper disposal of contaminants by citizens; Water conservation by citizens

Inputs and Activities ($) Item	FY24	FY25	FY26	FY27	Assumptions and Risks
I. Annual Recurrent Budget [a]					Political support for increased tariffs to enable sustainable system. Required technical, social, environment, and economic feasibility studies prove proposed investments are viable. Expertise for Feasibility studies will be available.
I.1. Annual PPUC recurrent budget – local	5m	5m	6m	6m	
II. PDP Priority Recurrent Programs (All Community)					
II.1 Water quality improvements, watershed restoration, pollution prevention, etc. ($20K x 15 states per year)	300,000	300,000	300,000	300,000	
II.2 Technical assistance/Engineering planning for water system and septic systems	750,000	750,000	750,000	750,000	
II.3 Feasibility studies/Technical planning for expansion of existing water systems into new subdivisions	200,000	250,000	200,000	0	
II.4 Feasibility study for new, centralized Babeldaob Water System	0	0	0	200,000	
III. PDP Priority Capital Programs					
III.1 Rehabilitation of the Koror-Airai System	0	0	6m	0	
III.2 Re-Construction of Ngerimel Bridge	130,000	0	0	0	
III.3 Construction of additional Chemical Storage Room and improved Life Cycle management	280,000	0	0	0	
III.4 Raise Ngerikiil Dam Weir by 2ft and reconstruct Dam Walls	130,000	0	0	0	
III.5 Refurbish the Distribution Storage Tanks – Airai, Ngermid, Ngerkesoaol, and Ngerkebesang	1.9m	0	0	0	
III.6 Water system improvement project for Imeong Ngeremlengui, Mechebechubel Ngatpang, Mongami and Ngchemiangel Aimeliik	1.7m	0	0	0	
III.7 Peleliu Water Treatment Reconstruction/Reinforcement	120,000	0	0	0	
III.8 Metering Program (Smart Electrical Water Meters?)	0	225,000	125,000	100,000	
III.9 Upgrade of Melekeok Wastewater Treatment Plant with existing capacity and procurement of pumps and spare parts	60,000	60,000	60,000	90,000	
III.10 Relocation of three pumping stations which are in private property compounds	0	0	900,000	0	
III.11 Rehabilitation of Echang Sewer system	375,000	0	0	0	
III.12 Refurbishment of the 37 Koror wastewater pumping stations.	130,000	130,000	130,000	180,000	
III.13 EQPB Lab Equipment	0	50,000	0	0	
TOTAL PPUC	**11.08m**	**6.77m**	**14.47m**	**7.63m**	

a) Some recurrent expenditure on water and sanitation is also provided by the Division of Environmental and Health and the Environmental Quality Protection Board.

NEMS: National Environmental Management Strategy; NRW: Non-Revenue Water; PPUC: Palau Public Utilities Corporation

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SECTOR CAPITAL AND PRIORITY ADDITIONAL RECURRENT EXPENDITURE

Capital Expenditure

Not all priority development programs can be immediately funded, nor may they be ready for consideration for funding. The Palau NIIP[138] adopted a 5-stage process of infrastructure approval that can now be applied to all capital expenditures: (i) compile a long list of all proposed capital expenditures, (ii) assess each proposal's readiness for appraisal, (iii) approve the Multi-Criteria Analysis (MCA) criteria, (iv) use the MCA to score proposals that are ready for appraisal and prioritize them, and (v) seek funding. This process is adopted for the approval of all PDP capital expenditure.

The 16 sector strategies prioritized a total of 75 proposed capital expenditures or development projects.[139] Total plan period capital needs of $396.86 million range from a total of $930,000 in the case of tourism to $143.6 million for marine transport. Other relatively large sector capital requirements are for energy at $101.9 million, education at $38.81, land transport at $38.60 million, and air transport at $37.45 million. All capital projects are listed by sector on the MOF website.

Readiness

Readiness asks if the proposed capital expenditure has been fully cleared to be considered for government funding. As approved by the NIIP all infrastructure projects – now all capital expenditure should first be cleared by a "CAPEX Committee" consisting of (i) the Attorney General's Office for any legal implications; (ii) the Ministry of Finance for recurrent cost and other public finance implications; (iii) the Office of Human Resources for questions regarding capacity, cost-efficiency, and the potential impact on public services and on culture; (iv) the Ministry of Public Infrastructure and Industries for any concerns about technology and regulatory requirements; (v) the Ministries of Health and Education for potential social impacts, (vi) the Ministry of Agriculture, Fisheries and the Environment regarding potential environmental impacts, resilience to climate change and natural hazards; and (vii) the Bureau of Land and Survey to confirm that the required land is available.

A total of 27 out of the 75 proposed capital expenditures received no red flags or objections and were assessed as being ready for detailed appraisal. Common readiness concerns were the need for a detailed feasibility assessment, the potential recurrent cost burden, and if the proposed project would meet all environmental regulations. Agriculture, housing, and marine transport projects raised the most concerns. The Readiness Filter and the readiness assessment are listed on the MOF website.

MCA Criteria and Assessment

The MCA is conducted on those capital expenditures that are assessed to be cleared for consideration for funding. The MCA ranks them in terms of assessed priority. Unlike the initial filter, the MCA is solely concerned with the estimated development impacts. It seeks to determine how well each proposal would serve the country's development needs as expressed in the PDP.

[138] Republic of Palau. 2021. National Infrastructure Investment Plan. Ngerulmud
[139] Capital expenditure includes infrastructure for transport and utilities, buildings, heavy machinery, equipment, and other asset purchases including land and deposits in the country's trust fund.

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The MCA criteria approved for the NIIP were the government's national development objectives adjusted for the immediate need for the economy to recover from the impact of COVID-19. These criteria have been adjusted to fit the development objectives or outputs of the PDP; that is, the five development pillars. Each criterion or pillar is broken down into specific ratings, with an accompanying description of each rating, to enable scoring for each criterion from -1 to 3, depending on the assessed degree of impact. Some simple cost, benefit analysis is embedded in the MCA to aid the scoring in the economy pillar.[140] Lastly, each score is weighted by the government's mandate and interpretation of the country's relative development needs. For the PDP the 5 pillars are given an equal weighting.

Capital expenditures are prioritized regardless of funding source; that is, whether they are to be funded from domestic revenues or possibly donor or development partner financed. The country's development priorities, not a possible source of funding, guide prioritization. MCA guidance notes are also available on the MOF website.

Pillar output scores for the 27 capital projects that are ready to be considered for funding (no flags) are presented in Table 22. The projects are ranked from highest average score to lowest.

Table 22: Capital Expenditure Ranked by MCA Score

Sector	Project Name	C	S	E	G	Ec	Av
Environment	III.2 PCC Expanded genetic research capabilities (BOE)	2.3	3	3	0	1	1.86
Environment	III.1 Expanded water quality testing capacity at EQPB	2.1	3	3	0	1	1.82
Environment	III.3 Expanded nursery capacity (BOE)	2.1	3	3	0	1	1.82
Energy	III.6 Sustainable investment program for power generation, transmission, and distribution	2.00	2	2	0	3	1.80
Transport - Air	III.1 Climate Change Mitigation Measures	2.1	3	2	0	1	1.62
Water & Sanitation	III.3 Construction of additional Chemical Storage Room and improved Life Cycle management	2.3	2	2	0	1	1.46
Public Safety	III.2 Fire Hydrants	2.2	3	1	0	1	1.44
Energy	III.4 New smart meters.	2.1	2	2	0	1	1.42
Public Safety	III.3 Police Radio and Maintenance with purchase of equipment	2.00	2	2	0	1	1.40
Water & Sanitation	III.8 Metering Program (Smart Electrical Water Meters)	2.00	2	2	0	1	1.40
Energy	III.8 Expansion of fiber -optic cable	2.2	3	-1	1	1	1.24
Public Safety	III.4 Ambulance	2.1	3	0	0	1	1.22
Water & Sanitation	III.1 Rehabilitation of the Koror-Airai System	2.1	3	1	0	-1	1.02
Energy	III.9 Update SCADA software system	2.00	2	2	0	-1	1.00
Public Safety	III.5 Complete construction of and furnishings for the new Prison in Ngchesar	2.3	2	-1	0	1	0.86
Tourism	III.1 Ngeremlengui Waterfall (Tourism attraction site)	2.1	2	-1	0	1	0.82
Water & Sanitation	III.2 Re-Construction of Ngerimel Bridge	2.1	2	-1	0	1	0.82
Water & Sanitation	III.5 Refurbish the Distribution Storage Tanks – Airai, Ngermid, Ngerkesoaol, and Ngerkebesang	2.1	3	0	0	-1	0.82

[140] The simple CBA consists of the calculation of financial ratios (total cost to annual average net benefit; total cost per person served; or cost-effectiveness set against sector standards, regional standards, or alternative investments).

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Water & Sanitation	III.6 Water system improvement project for Imeong Ngeremlengui, Mechebechubel Ngatpang, Mongami and Ngchemiangel Aimeliik	2.1	3	0	0	-1	0.82
Water & Sanitation	III.7 Peleliu Water Treatment Reconstruction/Reinforcement	2.1	3	0	0	-1	0.82
Water & Sanitation	III.4 Raise Ngerikiil Dam Weir by 2ft and reconstruct Dam Walls	2.2	3	-1	0	-1	0.64
Energy	III.7 Upgrade of protection system	2.1	2	0	0	-1	0.62
Energy	III.10 Installation of high-speed data recorders for fault analysis	2.00	2	0	0	-1	0.60
Energy	III.12 Grid Controller	2.00	2	0	0	-1	0.60
Energy	III.3 New Distribution Lines	2.3	2	-1	0	-1	0.46
Public Safety	III.1 Office Repair (Division of Fire & Rescue)	2.1	0	0	0	0	0.42
Energy	III.11 Installation of a grid forming battery near Koror	2.1	2	-1	0	-1	0.42

C: Culture, S: Social, E: Environmental, G: Governance, Ec: Economy.
Av: average

Priority Additional Recurrent Expenditure

The assessment of the national context and community priorities and the sector strategies identified 130 priority development initiatives of a recurrent cost nature. Improved management, policy formulation, strengthened planning, research and feasibility studies are common requirements. The priority additional recurrent expenditure initiatives total $30.30 million in FY 2024, of which the Government of Palau plans to finance $8.2 million. These proposals may not be infrastructure or other capital expenditure, and many initiatives may be comparatively of little cost, but they are nevertheless of importance to the growth and development of Palau. Again, the full list of priority additional recurrent expenditures are available on the MOF website.

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FINANCING THE PDP

Supply of Finance

The potential sources of PDP funding are (i) the national government's own revenues and borrowing, (ii) local, state government revenues and borrowing, state-owned enterprises (SOEs) and other revenue-retaining institutions, (iii) donor grants, (iv) development partner loans, (v) climate funds, and (vi) private sector investments including Public–Private Partnerships (PPPs). One other source of financing for some forms of expenditure could be the National Development Bank of Palau. Generally, sources of funds can be categorized as A. Palau's Source Funds, B. United States Government Compact of Free Association (COFA)-related, and C. Other country and development partner sources.

A. Palau's Source Funds

National Government Finances

The national government's investment in development expenditures has to date been most limited, outside of the purchases of some machinery and equipment, and occasional partial construction works, such as building the foundation for a new jail. Rather, the government has had to rely on donor grants and development partner loans to finance development. This situation could be about to change.

The MOF Economic and Fiscal Update for FY 2023 reports that the economy is projected to grow strongly in FY 2024 and FY 2025 by 12 percent and 8 percent, respectively. Thereafter as the tourism recovery gets underway and with increased construction activity, the outlook is also favorable, and growth is projected to settle down to an average close to 3 percent in the late 2020s. The fiscal balance is projected to be restored in FY 2024 without the need for deficit financing or a drawdown of COFA funds. Strong performance in tax revenues due to the implementation of the tax reform initiative is set to continue in FY 2024. With the projected availability of renewed Compact funds, non-tax revenues are also projected to be expanded significantly with $20 million for operations replacing the former $15 million drawdown from the COFA fund, and $10 million for infrastructure and infrastructure maintenance. With the continued restraint of expenditures due to renewed Compact uncertainties, the fiscal position is expected to generate a surplus of $10 million or 3 percent of GDP without any further funding needs or drawdowns from the COFA Trust Fund.

External debt to GDP is projected to have peaked out at 72 percent of GDP in FY 2022, fall to 69 percent in FY 2023, and decline gradually thereafter.[141] The fiscal outlook over the medium- and longer-term therefore looks favorable and raises the potential for new initiatives.

State Government Finances

With the earlier exception of Koror State, the state governments have also had little finance to invest in development. Based on a review of the Public Auditor's audits in FY 2017 the States committed from $85,000 (Hatohobei) to $ 477,000 (Angaur) in capital expenditure. These expenditures covered "construction projects", "public works", "projects and programs", "capital

[141] Government of Palau. 2023. Republic of Palau Economic and Fiscal Update FY 2023

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investment programs", protected area network projects, and specific repairs and maintenance.[142] Although Koror State has previously invested in development-related programs[143] its finances are now precarious due to a continuing commitment to substantial levels of wages and salaries and a loss of tourism revenues. The State Governments are unlikely to be able to finance much development over the period of the PDP.

Private Sector, including Public–Private Partnerships

Subprogram 2 of the policy-based loan from ADB aims to assist the government in preparing a framework for PPP.[144] PPPs so far are:

- The government and Japan Airport Terminal Company (JATCO) signed a joint venture agreement in August 2017 to renovate and expand the Palau International Airport. ($28 million phased over 2 years).[145]
- The government formed a PPP with EarthX, GridMarket, and the Global Island Partnership (GLISPA) in July 2018 to develop renewable energy in the country.[146]
- Palau Nature Works (PNW), the subsidiary of Guam Nature Works (GNW), and Aimeliik State Government signed a PPP Agreement to build integrated greenhouses for both agriculture and aquaculture farm operations in Aimeliik, Palau (year unknown). In the PPP Agreement, PNW obtained a 30-year lease of 50 acres (200,000 sqm) from Aimeliik State, which will be used for both farming and the tourism industry. The initial investment for the construction facilities, marketing, and farm operation is $3 million. A USDA rural development guaranteed loan will provide $2.4 million of the required funds.[147]

The government is considering further PPPs including partnerships in domestic commercial tuna fishing. Future PPPs might also be considered in tourism, vessel slipway construction, and port development.

Beyond PPPs, other potential private sector investments in public infrastructure utilities, and services are at present unknown.

State-Owned Enterprises

There are four major SOEs: (i) the Palau National Communications Corporation (PNCC), (ii) the Palau Public Utilities Corporation (PPUC), (iii) the National Development Bank of Palau, and (iv) the Belau Submarine Cable Company (BSCC). The provision of airport operations remains a government department, as is the Post Office and the main port at Malakal is owned by Koror State but operated by a private company under a 25-year concession.

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[142] Republic of Palau. Office of the Public Auditor. Financial Audits of ROP State Government: http://www.palauopa.org/state-governments.html

[143] $3 m in public works, over $2 million in Capital Improvement Projects, and almost $680,000 in State projects, among other expenditures in 2016 (last audit figures).

[144] ADB 2020. Concept Note. Proposed Programmatic Approach and Policy- Based Loan for Subprogram 1 Republic of Palau: Recovery through Improved Systems and Expenditure Support Program. Manila

[145] https://www.palaugov.pw/wp-content/uploads/2017/08/Press-Release_Signing-of-Joint-Venture-Agreemnt_07AUG2017_FINAL.pdf

[146] https://www.globenewswire.com/news-release/2018/07/16/1537710/0/en/New-Public-Private-Partnership-to-Transform-Island-Grids-on-the-Front-Lines-of-Climate-Change.html

[147] file:///Users/stephenpollard/Dropbox/Palau/NIIP%20Documents/Agriculture/Public%20Private%20Partnership%20(PPP)%20Agreement%20in%20Palau%20–%20guamnatureworks.html

As previously noted, in 2022, ADB provided budget support loans under PPUC (Phase 2) with $5 million, respectively. The loan to PPUC will strengthen the utility's corporate governance and financial management to ensure sustainable service delivery. As also noted above the World Bank is planning to provide technical assistance to strengthen the operations of BSCC and PNCC.

B. COFA-related Funds

Palau became independent in 1994, after having been under US administration since 1947. As part of a 50-year COFA, the United States provided $580 million in financial aid to Palau during 1994–2009 for infrastructure investment, budget support, and the establishment of a Compact Trust Fund (CTF). With an initial endowment of $70 million, the CTF was to provide Palau with annual revenue of $15 million from FY2010 to FY2044. However, the CTF funds proved insufficient, and a Compact Review Agreement extending financial assistance for another 15 years was signed in 2010. After a long delay, the agreement was ratified by the US Congress in late 2017. The total assistance provided under the new agreement amounted to $229 million, with over $120 million to be disbursed in FY2019.[148]

Palau has continued to receive substantial US financial assistance. Before the COFA ratification, Palau received current grants of $13.1 million and annually withdrew $5 million from the CTF from 2010 to 2017. Following ratification in late 2017, the remaining funds under the new agreement were disbursed in a lump sum, with $65 million added to the CTF, including $34 million for capital improvement projects and $25 million for current assistance in FY2018–19.

The terms originally specified in the Compact Renewal Agreement were for continuing current grant assistance, although at a declining level. Additional resources were provided to support the CTF, infrastructure maintenance, and capital projects. Palau's COFA has now been reviewed and renewed and an agreement between the two governments was signed in Port Moresby on May 2023. This agreement is subject to the fulfilment of each government's necessary further internal procedures. Articles 1, 2 and 3, the Annual Economic Assistance, Fiscal Consolidation Assistance and Section 211(f) Fund are summarized below in table 23.

Table 23: United States 2023 Compact of Free Association Funding (US$ '000)

Assistance	FY 24	FY 25	FY 26	FY 27
Grants [a]	20,000	20,400	20,808	21,224
Infrastructure Projects [b]	5,000	5,100	5,202	5,306
Infrastructure Maintenance Fund [c]	5,000	5,100	5,202	5,306
Fiscal Consolidation Fund	10,000	10,000	10,000	10,000
Compact Fund	50,000	50,000	-	-
Compact Fund withdrawals allowed up to [a d]	15,000	15,000	15,000	15,000
Emergency withdrawals [a]	5,000	5,000	5,000	5,000[e]

a: to be used exclusively for purposes related to education, health, climate adaptation, and the environment, the administration of justice, and public safety or for expenses related to required audits.
b: to be used for projects identified in the National Infrastructure Investment Plan 2021-2030 or successor plan subject to agreement.
c: to be used exclusively for maintenance of capital improvement projects financed by funds provided by the Government of the United States or as otherwise mutually agreed.
d: Annual withdrawals allowed up to 4% of a three-year moving average value of the Compact Fund at the end of most recently completed 3 fiscal years, or $15 million, whichever is greater.

[148] IMF. 2019. Republic of Palau Article IV Consultation

e: Annual withdrawal of 1.5% of a three-year moving average of the value of the Compact Fund or $5 million, whichever is greater.

As the footnotes state the new COFA is to be used exclusively for purposes related to education, health, climate adaptation, and the environment, the administration of justice, and public safety or for expenses related to required audits.

In 2019 the Federal Aviation Administration (FAA) provided $300,000 to the government to purchase a sweeper to pick up debris off the national airfield pavement. The government was also set to receive a $10.2 million grant from the FAA to expand the national airport.[149]

C. Other Country and Development Partner Sources[150]

Donor Grants

By far the largest donor to Palau is the Government of the United States through funding provided under the Compact of Free Association with the US Government (COFA) and various US government departments. Other donors are the Governments of Australia, Japan, the Republic of China, the United Arab Emirates, and the United Nations. The government also receives occasional lesser levels of assistance from the Governments of Canada, Germany, Italy, New Zealand, the Republic of Korea, and the European Union, the Global Environment Facility, some NGOs, and the World Health Organization. Donors have traditionally tended to align their funds with specific sectors limiting the flexibility for the Government of Palau to align finance with changing national development priorities. The establishment of an Aid Coordination Unit will help the government manage the various donor assistance programs in the interest of national development priorities and coordinate and integrate capital with recurrent budget management.

Australia

The Government of Australia allocated $4 million per year from 2022 to 2023 in non-ODA funds to support Palau after it graduated from the Organisation for Economic Co-operation and Development's (OECD) List of Official Development Assistance (ODA). This funding will support continued investments in women's empowerment, maritime security, oceans, infrastructure, private sector development, and regional recovery from the health and economic impacts of COVID-19, including the downturn of Palau's tourism industry.

Prior to graduation from ODA, Australia supported development activities to (i) remove unexploded ordnance from Koror and Peleliu, freeing land and marine areas for infrastructure, agriculture, housing, tourism, and community use, (ii) reform Palau's ICT sector and increase access to high-quality, low-cost internet services, and (iii) assist 22 Palauans to gain tertiary qualifications.[151]

A new flight, the “Australia-Palau Connector” connecting Brisbane, Port Moresby, and Koror return commenced in December 2022. Air Niugini, in partnership with the Australian Government, services the route. It is supported financially by the “Australian government’s Pacific Flight Programme” during the initial establishment phase.

[149] https://www.transportation.gov/briefing-room/us-transportation-secretary-elaine-l-chao-announces-more-12-billion-infrastructure

[150] There are other non-regular donations provided by other countries and non-governmental organizations not listed below.

[151] https://www.dfat.gov.au/geo/palau/development-assistance/Pages/development-assistance-in-palau

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Japan

The Government of Japan and the Japan International Cooperation Agency (JICA) have assisted the economic and social development of Palau through various projects for more than 40 years, reaching $256 million in total. Based on the commitment of the Pacific Islands Leaders Meeting (PALM)[152], the Country Assistance Policy and Rolling Plan for the Republic of Palau, which are revised regularly, determine Japan's basic policy and priority areas of assistance. Recently, Japan's assistance has placed importance on ocean and maritime security, infrastructure, industries, and climate change.[153]

Large-scale projects funded by Japan include[154]:

- Reconstruction of the national landfill
- Renovation, expansion, and operation of Palau International Airport
- Renovation of Palau Mariculture Demonstration Center
- Construction of the Palau International Coral Reef Research Center
- Construction of the Japan-Palau Friendship Bridge

Republic of China

The Republic of China has aided agriculture, culture, education, fisheries, medical services, tourism, and water supply infrastructure.[155] The Republic of China is preparing a further housing loan of $15 million. Funds will be lent to private borrowers through the Palau National Development Bank. The Palauan government will be responsible for helping to set lending policies and for monitoring and reporting on the program.[156]

United Arab Emirates

The United Arab Emirates has helped with solar energy and water access.

Development Partners

Again, development Partners tend to align their funds with specific sectors limiting the flexibility for the Government of Palau to align finance with changing national development priorities. The establishment of an Aid Coordination Unit will help the government manage the various development partner assistance programs in the interest of national development priorities and coordinate and integrate capital with recurrent budget management.

Asian Development Bank

The Pacific Approach, 2021-2025 of the Asian Development Bank (ADB) serves as the country partnership strategy for Palau and focuses on building resilience against economic shocks, delivering sustainable services, and promoting inclusive and sustainable growth. It introduces new priorities for a programmatic approach to climate change, longer-term capacity

[152] https://www.mofa.go.jp/region/asia-paci/palm/index.html
[153] https://www.palau.emb-japan.go.jp/itpr_en/economic.html
[154] https://www.mofa.go.jp/files/100198661.pdf
[155] https://interactives.lowyinstitute.org/archive/pacific-aid-map-country-profiles/downloads/LOWY2192_PALAU.pdf
[156] https://www.facebook.com/ThinkBigPalau/posts/4791818637525201

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support, procurement flexibilities, and an emphasis on gender equality. Recognizing the need for capacity support to complement physical infrastructure, ADB is helping improve utility and public sector performance alongside infrastructure works.

To date, ADB has committed 26 public sector loans, grants, and technical assistance totaling $202.5 million to Palau. Cumulative loan and grant disbursements to Palau amount to $167.79 million. These were financed by regular and concessional ordinary capital resources, the Asian Development Fund, and other special funds. ADB's ongoing sovereign portfolio in Palau includes 6 loans and 1 grant worth $100 million.

ADB has provided $115 million in loans and nearly $4 million in grants and technical assistance to address challenges related to COVID-19, including a $770,000 grant that is currently supporting affected vulnerable groups. To prepare for future shocks, Phase 3 of ADB's Pacific Disaster Resilience Program will provide $20 million in disaster-contingent financing for recovery and reconstruction following future natural hazards or health emergencies.

In 2022, ADB provided budget support loans under the Recovery through Improved Systems and Expenditure Support (RISES) Program (Subprogram 2) and Palau Public Utilities Corporation (PPUC) (Phase 2) with $30 million and $5 million, respectively. The RISES Program has assisted Palau in strengthening policy and legislative frameworks for public financial management, reducing fiscal risks linked to weak public sector asset management, and supporting private sector development. The loan to PPUC will strengthen the utility's corporate governance and financial management to ensure sustainable service delivery. Other ongoing projects in Palau are in information and communication technology, sanitation, and energy.[157]

United Nations

The 2021 UN Palau Joint Country Action Plan is assisting Palau with (i) climate change, disaster resilience, and environmental protection; (ii) gender equality; (iii) sustainable and inclusive economic empowerment; (iv) equitable basic services; (v) governance and community engagement; and (vi) human rights. A total of $8.94 million has been provided, with an unfunded budget of $1.87 million.

The UNDP also plans to assist Palau, together with Fiji, Samoa, and Vanuatu, with border management in support of COVID-19 recovery and preparedness.

The World Bank

Palau's gross national income per capita attained a level of $17,072 in FY2017. It is therefore classified as a high-income country by the World Bank and is not entitled to concessional financing. The World Bank has assisted Palau with ICT and oil and gas exploration and is planning to provide technical assistance to strengthen the operations of BSCC and PNCC to analyze additional ICT infrastructure needs with possible financing to use the international submarine cable more effectively, and to promote sector growth and development[158]. The World Bank is

[157] https://www.adb.org/sites/default/files/publication/27787/pal-2022.pdf

[158] https://projects.worldbank.org/en/projects-operations/project-detail/P160504?lang=en, and https://projects.worldbank.org/en/projects-operations/project-detail/P130592?lang=en&tab=procurement&subTab=notices, and https://projects.worldbank.org/en/projects-operations/project-detail/P103034

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currently processing an investment project and technical assistance in support of the implementation of the Blue Prosperity Plan for approval late 2024.

Climate Funds

Over the medium term (3 to 5 years), ensuring greater assistance from multilateral climate change schemes might help to cope with the substantial adaptation cost to prepare for natural disasters and climate change and to finance any proposals for wave energy, solar energy, and other renewable energy projects.

Regional Development Assistance

The European Union updated its regional assistance program to African, Caribbean, and Pacific member countries in 2021.[159] In the wake of the COVID-19 crisis, the EU will focus on creating the conditions for a sustainable and inclusive socio-economic recovery and will work actively with its partners in the following seven areas: (i) Sustainable and inclusive prosperity; (ii) Green transition; (iii) Ocean governance; (iv) Digital governance and partnerships; (v) Connectivity; (vi) Security and defense; and (vii) Human security.

Palau also benefits from technical assistance provided by other regional organizations such as the Pacific Association of Supreme Audit Institutions, the Pacific Financial Technical Assistance Centre, the Pacific Regional Infrastructure Facility, and the Pacific Private Sector Development Initiative.[160] The Pacific Region Infrastructure Facility helped Palau finalize its National Infrastructure Investment Plan, which set priorities for investments during 2021–2030. The Pacific Private Sector Development Initiative is strengthening the business environment by supporting PPPs, increased transparency, and improved access to credit.

Financing Strategy

Donor and Development Partner assistance programs are already partially set for the first years of the PDP. Over time these programs will become more aligned with the PDP priorities.

The PDP and longer-term funding strategy for development expenditure prioritizes the generation of government revenues so that the government may in the future finance its priority investments from its own funds. This will include priority projects of a recurrent nature, such as policy, planning, market research, management and feasibility studies that will help identify revenue-generating development activities. Priority development expenditure will otherwise continue to be subject to the negotiation of ongoing donor and development partner assistance programs.

Funding for PDP selected, priority capital projects, and priority additional projects of a recurrent nature is summarized in Tables 24 and 25. The complete tables are posted on the Ministry of Finance website, here and here. Future project funding will be coordinated by the new Aid Coordination Unit and all future capital and recurrent expenditure financing will be administered, filtered, scored and ranked in accordance with future budget preparations for each fiscal year.

[159] https://www.eeas.europa.eu/sites/default/files/jointcommunication_2021_24_1_en.pdf
[160] https://www.pasai.org/, https://www.pftac.org/content/PFTAC/en1.html, https://www.theprif.org/, https://www.adb.org/publications/pacific-psdi-brochure

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Table 24: Filtered Capital Projects in Order of Priority ($)

No.	Sector	Capital Project	ROP	COFA	OTHER DDP	FY24	FY25	FY26
CP22	Environment	PCC Expanded genetic research capabilities (BOE)	1m	-	-	-	-	1m
CP21	Environment	Expanded water quality testing capacity at EQPB	-	-	1m	1m	-	-
CP23	Environment	Expanded nursery capacity (BOE)	200k	-	-	50k	50k	50k
CP14	Energy	Sustainable investment program for power generation, transmission, and distribution	-	-	40.2m	5.8m	14.4 m	10m
CP43	Transport – Air	Climate change Mitigation Measures	-	200k	-	50k	50k	50k
CP60	W&S	Construction of additional Chemical Storage Room and improved Life Cycle management	-	-	280k	280k	-	-
CP33	Public Safety	Fire Hydrants	-	60k	-	60k	-	-
CP12	Energy	New smart meters.	-	-	1.7m	1.7m	-	-
CP34	Public Safety	Police Radio and Maintenance with purchase of equipment	-	95k	-	95k	-	-
CP65	W&S	Metering Program (Smart Electrical Water Meters?)	-	-	450k	-	225k	125k
CP16	Energy	Expansion of fiber -optic cable	-	-	2m	2m	-	-
CP35	Public Safety	Ambulance	-	300k	-	300k	-	-
CP58	W&S	Rehabilitation of the Koror-Airai System	-	-	6m	-	-	6m
CP17	Energy	Update SCADA software system	2m	-	-	2m	-	-
CP36	Public Safety	Complete construction of and furnishings for the new Prison in Ngchesar	-	2.5m	-	2.5m	-	-
CP37	Tourism	Ngeremlengui Waterfall (Tourism attraction site)	-	-	90k	90k	-	-
CP59	W&S	Re-Construction of Ngerimel Bridge	-	-	130k	130k	-	-
CP62	W&S	Refurbish the Distribution Storage Tanks – Airai, Ngermid, Ngerkesoaol, and Ngerkebesang	-	-	1.9m	1.9m	-	-
CP63	W&S	Water system improvement project for Imeong Ngeremlengui, Mechebechubel Ngatpang, Mongami and Ngchemiangel Aimeliik	-	-	1.7m	1.7m	-	-
CP64	W&S	Peleliu Water Treatment Reconstruction/Reinforcement	120k	-	-	120k	-	-
CP61	W&S	Raise Ngerikiil Dam Weir by 2ft and reconstruct Dam Walls	130k	-	-	130k	-	-
CP15	Energy	Upgrade of protection system	-	-	1.7m	1.7m	-	-
CP18	Energy	Installation of high-speed data recorders for fault analysis	-	-	150k	150k	-	-
CP20	Energy	Grid Controller	-	-	200k	200k	-	-
CP11	Energy	New Distribution Lines	-	1.75m	-	1.75m	-	-
CP32	Public Safety	Office Repair (Division of Fire & Rescue)	-	250k	-	250k	-	-
CP19	Energy	Installation of a grid forming battery near Koror	-	-	21m	21m	-	-
		TOTALS	**ROP 3.45m**	**COFA 5.155m**	**OTHER DDP 78.5m**	**FY24 44.955 m**	**FY25 14.72 5m**	**FY26 17.22 5m**

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Table 25: Priority Recurrent Projects Planned Expenditure ($)

Total Expenditure by Sector and Other Ministry	ROP	COFA	Other DDP	FY24	FY25	FY26	FY
Agriculture				1,536,000	1,548,000	1,573,000	1,56
Education				5,927,000	6,053,000	5,905,000	6,02
Energy				1,400,000	1,450,000	2,000,000	2,42
Environment				3,290,000	2,640,000	2,640,000	2,64
Financial Services				1,655,000	840,000	520,000	49
Fisheries and Aquaculture				3,860,000	3,860,000	3,860,000	1,86
Health				325,000	100,000	100,000	10
Housing				250,000	330,000	50,000	
ICT				100,000	100,000	100,000	10
Public Safety				520,000	490,000	490,000	52
Solid Waste Management				170,000	270,000	720,000	42
Tourism				415,000	120,000	120,000	12
Transport – Air				220,000	250,000	280,000	43
Transport – Land				3,360,000	3,360,000	3,360,000	3,36
Transport – Marine				150,000	680,000	772,000	96
Water and Sanitation				1,250,000	1,300,000	1,250,000	1,25
Other, not captured by Sector							
Ministry of Human Resources, Culture, Tourism and Development				410,000	200,000	200,000	20
Ministry of Health and Human Services				70,000	0	0	
Ministry of Finance				4,270,000	3,955,000	4,525,000	5,58
Ministry of State				500,000	700,000	700,000	50
Office of the President				250,000	250,000	250,000	25
Total:				**29,928,000**	**27,896,000**	**29,415,000**	**28,80**

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MONITORING AND EVALUATION

PDP progress will be annually monitored at the sector level when each sector performance monitoring and funding framework is updated every April to June in preparation for annual budget negotiations.

An end of PDP evaluation will be prepared and presented at the Development Symposium to be held in November 2026. Individual sector progress over the 4 fiscal years of PDP will be summarized and an overall assessment will be made of progress with the 5 development pillars; that is, social, cultural, environmental, governance, and the economy over the entire plan period. Respective evaluation indicators, benchmarks, and targets are presented in Table …

Table : End of PDP Evaluation[161]

Pillar	Indicator	2023 Benchmark	2026 Target
Social	Incidence of diabetes [a)]	23.4% of adult women and 26.8% of adult men (2022)	Equal or less than 2022.
Culture	Number of residents aged 18 years and older speaking Palauan (3 Palauan languages – Tekoi er Belau, Sonsorolese, Hatohobeian	13,576 (2020 census)	>13,576 (2026 census)
	Number of heritage sites registered and protected (Types of registered sites (i.e. traditional fishing areas, mesei – taro fields, terraces, stone work villages, etc.)	2023 190 registered sites	2026 >190 registered sites
	Number of cultural and traditional knowledge practitioners	No data	Number and types of cultural practitioners available
Environment	Kg of agricultural production	500,000 kg (2022)	1,000,000 kg (ag)
	Kg of pelagic fish production	47,667 kg (2022)	100,000 kg
	Water quality parameters (Coliform presence/absence; Turbidity NTU)	19% fail rate (2018)	<10% fail rate.
	National environment management capacity	31 (2002)	35 (2026)
Governance	Government effectiveness, percentile rank [b)]	40 (2021)	45
	Private sector development strategy designed and implemented	2023 no strategy	2024 to 2026 strategy

[161] The evaluation is currently short of indicators for progress with the social pillar and these will be added during the period of the PDP.

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			designed and ongoing
	Public sector modernization program	2023 no program	2024 to 2026 program designed and ongoing
	National and Sector policy planning structure approved and operating	2023 structure designed	2024 to 2026 structure fully operating
Economy	Budget deficit, $ million	-18.3 (FY21)	Balanced budget
	Debt/ GDP	96% (2023)	<60% by FY26
	GNI per capita	$13,305 (FY21)	$15,838 (Back to FY18)
	Trust Fund Total Market Value	$284,629,483 31 March 2023	Preserved real value by FY26
	Visitor arrivals	FY20. 41,628	To exceed 100,000 by end 2026

a): Global Nutrition Report. Country Nutrition Profiles: https://globalnutritionreport.org/resources/nutrition-profiles/oceania/micronesia/palau/#:~:text=Palau's%20obesity%20prevalence%20is%20higher,and%2026.8%25%20of%20adult%20men.
b): World Bank Governance Indicators Table 14 above.

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